

Brunei

1956



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Brunei Harbour.



STATE OF BRUNEI

ANNUAL REPORT
1956

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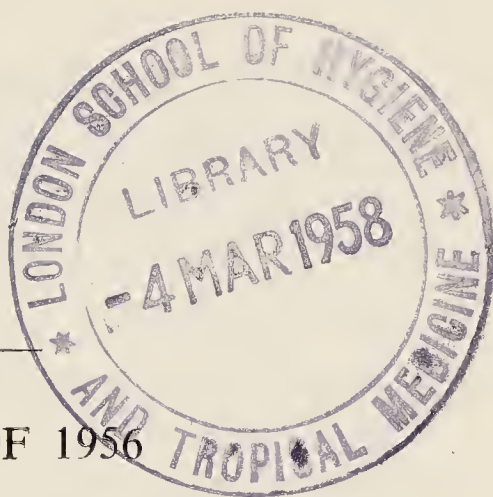


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PART I

PART I



A. GENERAL REVIEW OF 1956

THE declaration made by Her Majesty the Queen extending the period of Office of Sir Anthony Abell, K.C.M.G., Governor of Sarawak and High Commissioner for Brunei, for a further period of two years was received in Brunei with great satisfaction by all communities.

1956 proved to be a year of steady progress without anything spectacular to report. With regard to the Development Plan, this has been a year of consolidation and few new development schemes were announced. The progress of development has been criticised as being slow, but this criticism generally comes from uninformed sources. Although many big schemes come directly under consultants, there are many works such as road development which come directly under the Public Works Department and the necessity to employ for such schemes local labour not of the highest calibre, made progress both slow and expensive.

Considerable progress has been made during 1956 under the Education Development Plan. This plan was given considerable priority during the year, but for the next year or so educational development will probably have to slow down in order to give way to other projects which have been considerably delayed due to the high priority given to educational development. This slow down will not affect primary education as there are now sufficient schools for all, it will merely affect certain branches of secondary education.

The improvement in all forms of internal communications has been considerable. The internal air service has been greatly improved although the schedule has greatly taxed the three old Rapides which provided this service. In November last year the Singapore/Brunei direct link was opened up by Malayan Airways.

Although the Road Programme did not appear to make spectacular progress, a great deal of the spade work was completed during the year which should produce spectacular advancement in 1957.

The V.H.F. telecommunication development has had its setbacks. This was mainly due to the difficulty in obtaining technicians of any reasonable qualifications from outside the State. The assistance which Sarawak has given in this respect is much appreciated.

Progress on the building of the new mosque in Brunei Town was very satisfactory and it is hoped that this mosque will be opened in 1958. When this Mosque and the lagoon and surroundings are completed it should prove one of the finest mosques in South East Asia.

The main obstacle in the way of rapid development of the State is definitely the lack of qualified staff to fill the numerous vacancies. This is especially so in the case of technical departments, but the lack of clerical staff with any kind of qualifications is also being seriously felt. There is naturally a strong desire to fill these many vacancies by Brunei born men where possible, and although this desire is quite natural, because of low qualifications of the local officers, the progress is slow.

The State forests are still one of the State's greatest assets, but as the financial position of the State still continues to be very sound the previous policy whereby State forests were not exploited more than was necessary for internal consumption, continued throughout the year. The policy is one of conservation and silviculture development, so that when it is necessary to exploit this asset, it can economically produce considerable revenue to the State.

There is no doubt that there is a strong religious revival developing throughout the State and during the year the Religious Councils Enactment was introduced. This Enactment puts considerable power into the hands of the religious officials. It is sincerely hoped that this religious revival will not develop a fanatical outlook and will not upset the balance of normal thinking thus becoming a danger to the progress of the development of the State.

The financial position of the State at the end of 1956 showed a very healthy state. The revenue for the year was \$118,294,880 which was again a considerable increase over the previous year; the revenue for 1955 was \$102,669,423. The revenue for the year showed a surplus balance over expenditure of over \$70 million.

1956 was the first full year in which schemes for old age pensions and disability pensions had been carried out. These schemes were administered by an officer seconded from the United Kingdom Ministry of Pensions and it can be said that these social development schemes are running smoothly and efficiently. This scheme contains no means test. A full report of this scheme is outlined elsewhere in this report.

The year showed a considerable increase in the enrolment of school children. The total enrolment at the end of the year was 10,151, an increase of 1,591 over the 1955 figure. These figures also showed that the increase in the number of girls enrolling was very satisfactory. Thirteen new permanent primary schools were completed during the year. All these buildings include quarters for teaching staff. During the year a new policy was implemented for assisting the Chinese Vernacular Schools. Under this policy Government now grants each Chinese school up to 50 per cent of the annual current expenditure of the school. Government also grants up to 50 per cent of the cost of capital expenditure of approved schemes. One of the conditions of the grants are that school teachers shall be paid a similar emolument as that paid to a Government teacher. This is a considerable increase in pay and gives Chinese teachers a much better feeling of security and standing in the community.

It is estimated that between 80 and 90 per cent of children of school-going age are registered in and regularly attend schools as pupils. There are at present very few candidates qualified to fill the vacancies among the clerical staff but, as has already been stated, there are numerous vacancies also for qualified technicians and it appears to be important that the education policy of the State should provide for more agricultural, technical and trades training in future.

In 1956 the B.M.P. Company produced approximately 42 million barrels of light and heavy crude oil. This is an increase of approximately 3 million barrels as over 1955 production. During

the year a drilling platform was successfully launched on the Ampa patches which is situated about 21 miles out to sea off the Seria coast. The first high seas exploration well was spudded in from this platform on November 13th. All personnel required for this operation are accommodated on the platform and are transported to and from the shore as required by helicopter. Published in this report are photographs of this platform taken from the air and other photographs show the platform under construction in the Marine Yard.

The following is a list of persons of importance who paid official visits to the State during the year:—

His Excellency Sir Robert Scott, The Commissioner General for South East Asia.

H.E. Sir Anthony Foster Abell, K.C.M.G., The High Commissioner for Brunei.

H.E. Mr. J. H. Ellis, C.M.G., Acting High Commissioner for Brunei.

Mr. F. Clinour, Belgian Consul General.

Mr. R. E. Marshall—Colonial Veterinary Adviser.

Mr. D. G. E. Middleburgh, Netherlands Consul General.

Mr. Edward Bower—United Kingdom Trade Commissioner.

Mr. H. M. Lee Marchand, Commercial Counsellor and Australian Trade Commissioner in Malaya.

Professor I. G. Hill, C.B.E., F.R.C.P., F.R.S. (e). St. Andrews University, England.

Admiral B. E. Dixon, U.S.N., U.S.S. Pine Island.

Mr. P. A. Jennings, C.B.E., Director General of the Overseas Audit and the Principal Auditor.

Dr. Millard, Head of Colonial Section, Road Research Laboratory.

Professor Zelma Cowen, Dean of The Faculty of Law, Melbourne University, Australia.

B. DEVELOPMENT

This was the first year of full-scale development work: engineers, plant, and equipment were all in place and great changes have been wrought both on the ground and in the lives of almost everyone in the State outside the oilfields.

Head Office of
The British
Malayan Petro-
leum Company,
Limited,
showing Aerial
Ropeway to
Offshore Plat-
form.



Marine Drilling
Platform at Ampa
Patches, Brunei.



To those living in the State progress seems painfully slow, buildings take ages to rise from the ground, and new works completed are taken for granted while attention is focussed always on to the future and what remains to be done. To the visitor however great and comparatively rapid changes are apparent.

Roads:

These remarks apply most pointedly to roads. Once a road is surfaced and finished it is forgotten: it is no longer a subject for conversation; people talk only of the roads not completed and of those not even started.

It is well therefore to record that just before the beginning of the year the main Brunei to Tutong road (which goes on to the oilfields) was only open at certain hours; parts were a quagmire; only land-rovers and jeeps could get through; and a bulldozer stood by with the hawzer to pull out stuck vehicles. This was all due to unprecedented rains and a volume and weight of traffic for which the old road was never designed.

By the end of the year, those same sections which were quagmire had been transformed into a first-class highway 22 ft. wide on which 60 m.p.h. can be touched without undue risk. There is now 10 miles of such highway.

From Tutong to the oilfield, some 17 miles, the beach must still be used, but of this 17 miles there is now 15 miles of new road formation, just inland from the beach, waiting to be surfaced.

Nearly all Brunei and Kuala Belait town roads are now tar-sealed. Fourteen months ago drivers avoided certain roads because of the muddy pot-holes: now the same roads are sealed and drained.

Airport:

In November, Brunei Airport was opened to Dakota aircraft and passengers are now able to travel to Singapore, Kuching and Jesselton without having to use the small feeder aircraft which previously linked the State with the trunk route. The new terminal building was in an advanced state by the end of the year.

Telecommunications:

The VHF radio-telephone links throughout the State were completed although a number of teething troubles have been experienced. Staff shortages greatly affected the servicing and

for the silversmiths in Brunei Town where electric power and modern equipment will be available to expedite production in this ancient hand-craft. The industry was at low ebb and was in fact in danger of dying out when in 1949 Government granted assistance. It is now showing every sign of becoming a flourishing industry as indicated by sales which have risen from \$11,070 in 1954, to \$19,271 in 1955, and to \$24,950 in 1956.

General:

The limiting factor in the State's Development Programme is still supervisory staff and labour. Most of the building and construction work is carried out by outside contractors who bring in labour on a temporary basis. But once the buildings or services are constructed a determined effort is made to ensure that they are run and maintained as far as possible by local people. Funds are readily made available for the training of local boys or quite senior civil servants or others overseas and in this the co-operation of Australia, New Zealand, Malaya and Sarawak needs special acknowledgment. This co-operation has extended to the sending of advisers who also undertake training of local staff while they are here. Brunei is indeed fortunate in its friends.

C. POLITICAL DEVELOPMENT

Political Party:

It is to be expected that a vociferous nationalist movement should develop in a State such as Brunei at its present stage of development. Such a movement has now materialised under the name of Party Rakayat (Peoples Party). This political party applied for registration at the beginning of the year but its application was refused on the grounds that some of its aims and objects were inconsistent with those permitted under the Enactment controlling such bodies. However, after considerable negotiations the leaders of the Party Rakayat agreed to modify their proposals and the Party was eventually registered during the middle of the year. It is difficult to assess the true following of this political party, but it was apparent at the end of the year that its following had increased considerably particularly by enrolment amongst the labouring classes.

The formation of the Party Rakayat led to an initial outbreak of hooliganism amongst its more immature members, but this has now diminished. Unfortunately there are many mal-

contents amongst the Party members and these are mainly dismissed ex-Government servants who see in the Party a means of expressing their discontent and dissatisfaction. The following amongst the more educated classes is very limited.

The Party's main demand is for self-government, but its leaders say that they are satisfied that this must necessarily be a slow process owing to the very limited number of persons of the requisite calibre available. In its other demands the Party has merely reiterated the Government's present policy of general development, and in some cases the Party has merely been demanding what, in fact, has already been accomplished by the Government. This show of political immaturity and lack of understanding on the part of the leaders may, perhaps, be designed to enable the leaders to take credit for the outcome of the Government's development policy which must inevitably take time to reach full fruition.

Local Government:

At the beginning of the year State Council passed the Local Councils Enactment to provide for the establishment of Local Government in the State, but the Enactment only comes into operation on such a date as the Sultan in Council may determine.

Strenuous efforts were made during the year to form Local Councils which would accept responsibility for running their own affairs under suitable supervision. Although there are at present in existence District Councils these Councils act only in an advisory capacity, and the intention was to form Urban and District Councils with their own budgets and employing their own officials thereby giving them more executive control over their own affairs in their own Districts.

These proposals were rejected in general by the people and progress towards Local Government has come to a temporary stop. The reasons for the rejection were---

(a) the suspicion that the new Councils would mean an increase in rates, taxes, etc.;

(b) that many of those holding minor posts in Government and those exercising some customary power would find themselves divested of what influence they now exercise;

(c) a lack of understanding of the true function and meaning of the proposals, which was due in part to the lack of staff to undertake continuously the duties connected with the initiation and development of Local Government.

The Local Councils Enactment still remains on the Statute Book, and efforts will again be made in 1957 to prepare the ground for the full-scale introduction of District and Urban Councils in 1958.

PART II

CHAPTER I

POPULATION

Registration of Births and Deaths:

THE registration of births and deaths is at present undertaken by the Medical Department. The following tables give some information regarding the births and deaths which were reported to the Registrar during the year 1956. It is not possible to say how accurately these figures represent the true number of births and deaths since the collection of these statistics is necessarily done, for the greater part, by persons of very little education.

TABLE I

DEATHS REPORTED BY DEPUTY REGISTRARS

Certified by Medical Practitioners	139
Certified by Registering Officers after death	381
Uncertified	384
	<hr/>
GRAND TOTAL	904
	<hr/>

It will be seen that only 15 per cent of the total number of deaths were certified by a Medical Practitioner, so that it is not possible to provide any useful information as to the common causes of deaths.

The infant mortality rate, as calculated from the available data, was 103.4 per 1,000 in 1956.

TABLE II

1949	128.3	per 1,000
1950	136.9	„ „
1951	80.9	„ „
1952	103.9	„ „
1953	113.3	„ „
1954	99.6	„ „
1955	102.5	„ „
1956	103.4	„ „

TABLE III

DEATHS GROUPED ACCORDING TO AGE, SEX, NATIONALITY

Deaths by Age Groups		Sex	Europeans	Eurasians	Chinese	Malays	Indians	Native Bornean Races other than Malay	Others	Total
Under 1 year	M		—	—	18	191	1	48	1	259
	F		—	—	10	124	1	26	—	161
1 year	M		—	—	6	47	—	14	2	69
	F		—	—	5	38	1	14	—	58
5 years	M		—	—	—	8	—	1	—	9
	F		—	—	2	3	—	2	—	7
10 years	M		—	—	2	5	—	1	—	8
	F		—	—	2	3	—	2	—	7
15 years	M		—	—	1	2	—	2	—	5
	F		—	—	—	4	—	4	—	8
20 years	M		—	—	1	3	—	2	—	6
	F		—	—	—	11	—	5	—	16
25 years	M		—	—	—	6	—	1	—	7
	F		—	—	3	6	—	3	—	12
30 years	M		—	—	2	3	—	5	—	10
	F		—	—	—	14	—	1	—	15
35 years	M		—	—	2	4	1	2	—	9
	F		—	—	—	8	—	3	—	11
40 years	M		—	—	3	7	1	3	—	14
	F		—	—	2	9	—	6	—	17
45 years	M		1	—	2	9	—	5	—	17
	F		—	—	—	8	—	4	—	12
50 years	M		—	—	25	42	2	15	—	84
	F		—	—	7	50	—	24	2	83
Total Death	M		1	—	62	327	5	99	3	497
	F		—	—	31	278	2	94	2	407
TOTAL			1	—	93	605	7	193	5	904

TABLE IV

BIRTHS REGISTERED ACCORDING TO SEX AND NATIONALITY

Sex	Europeans	Eurasians	Chinese	Malays	Indians	Native Bornean Races other than Malay	Others	Total	Total both Male & Female
Male	20	12	482	1,129	50	416	34	2,143	
Female	14	4	490	982	39	339	65	1,933	
TOTAL	34	16	972	2,111	89	755	99	4,076	4,076

TABLE V

Total number of births registered in 1956		4,076
Number of births attended by Government midwives	1,915	
Number of births attended by B.M.P. midwives	598	
Number of births attended by unqualified Native midwives	1,563	4,076

TABLE VI

CRUDE BIRTH RATES (APPROXIMATE) FOR THE PERIOD 1953—1956

	1954	1955	1956
Total Births	3,332	3,600	4,076
Male	1,734	1,873	2,143
Female	1,598	1,727	1,933
Birth Rate per Mille	57.3	52.5	61.9

TABLE VII

CRUDE DEATH RATES (APPROXIMATE) FOR THE PERIOD 1953—1956

	1954	1955	1956
Total Deaths	766	878	904
Male	415	459	497
Female	351	419	407
Death Rate Per Mille	13.1	13.9	13.7

The figures in tables VI and VII are based on an approximate mid-year population of 65,865.

At the time of the last census, 1947, it was calculated that there were 40,670 persons living in the State. It was estimated that this figure had as the result of immigration and a high birth rate, increased to 65,342 in 1955. Immigration during 1956 included 28,212 males and 10,712 females, whereas 26,098 males and 9,939 females left the State in that year, resulting in a net increase of 2,887 persons by immigration.

Births during 1956 numbered 4,076 and deaths 904, so that the net gain in population for the year 1956 was 6,059 persons, making an estimated total of the State at the end of December, 1956, of 71,401.

The racial distribution of these persons as indicated by the 1947 census is—

	<i>Per cent</i>
Malays (Brunei)	49
Kedayans	17
Dayaks	3.5
Muruts	0.5
Dusuns	7
Chinese	19
Indians	1.5
Europeans	1.5
Others	1

The population is distributed in three main groups, there being approximately 15,000 persons in the Brunei Municipal area, 25,000 in the urban areas of Seria and Kuala Belait which includes the British Malayan Petroleum Company Oilfield, and the remainder being scattered through the rural areas of the State.

The land area of the State is 2,226 square miles, so that the density of population is approximately 32 persons per square mile.

Migration:

There is a very large movement of persons into and out of the State annually, due to the large demands for labour and technical and professional staff by the Government Service, the British Malayan Petroleum Company and the Contractors responsible for construction under the State Development Plan. This movement is carefully controlled and there are strict limitations placed upon the permitted periods of temporary residence within the State of other than the permanent residents of the State.

TABLE VIII

STATISTICS OF MIGRATION

<i>Nationality (In Alphabetical order)</i>	<i>Entering</i>		<i>Leaving</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
American	37	21	39	20
British (Indigenous)	1,481	512	1,437	507
British (Dayaks)	1,713	216	1,765	197
British (Malays)	7,361	3,537	6,945	3,314
British (Non Indigenous)	541	269	517	247
Burmese	31	24	49	42
Chinese (British and Aliens)	13,556	5,435	12,414	4,973
Dutch	311	144	279	149
French	23	9	19	7
Indian and Pakistanis	1,530	195	1,344	174
Indonesian	90	26	73	16
Swiss	19	8	19	6
Others	1,519	316	1,198	287
GRAND TOTAL	28,212	10,712	26,098	9,939

CHAPTER II

OCCUPATION, WAGES AND LABOUR ORGANISATION

DURING the year there was little change in the overall picture of occupation in the State. At one end of the scale is the cultivation of small holdings by the rural indigenous population engaged in self-sufficient pursuits such as agriculture, fishing or the harvesting of jungle produce. At the other is the oilfield of Seria, where employment and in many cases preliminary training, is available in many of the skilled, unskilled and artisan trades incidental to an oil company.

The extensive development programme of the State, the construction of roads and buildings, both public and private buildings continued within the localities of Brunei Town, Seria and Kuala Belait. Large numbers of skilled and unskilled labour continued to be absorbed and the small sawmills, woodworking and furniture shops were fully employed.

A reasonable price prevailed for rubber during the year and there was some interest in small holder production. The four larger estates, due to labour shortage, were again not able to increase their output as much as the price for the commodity justified. Market gardening in the western area of the State continued to expand in order to meet the increasing oilfield area's demand for fresh vegetables.

Unemployment is unusual as the demand for labour in both the skilled and the unskilled grades far outstrips supply. There is, therefore, no unemployment problem. The problem is still the converse and consists in meeting excess demand for labour caused by the activities of the British Malayan Petroleum Company and their contractors, the Public Works Department and their contractors in carrying out the State Development Plan, the four rubber estates and some small sawmills and woodworking industries working at full pressure. In the early part of 1957 there may however be some easing in the demand for construction

workers. Outside these activities the population is mainly engaged in peasant agriculture. Excess demand for unskilled labour must therefore be met by recruitment from either Sarawak or North Borneo, and in the case of skilled and artisan workers, by importation from Hongkong, Malaya and India.

A careful check is kept on the entry of such labour into the State. Such immigrant labour may only be engaged by reference to the Commissioner of Labour. All permits are for limited periods and are granted only to enable the completion of a specified task and where practicable, the training of a local worker in the same project.

With a slightly increased output of crude oil in 1955, the British Malayan Petroleum Company, Limited, had at Seria in its service some 1,327 (1,308 in 1955) European and an Asian labour strength composed as follows:—

<i>Nationality</i>	<i>Unskilled</i>	<i>Skilled</i>	<i>Total</i>
Chinese	321	997	1,318
Malays	680	1,040	1,720
Indians	79	563	642
Ibans	286	126	412
Javanese	14	32	46
Others	1	6	7
	<hr/>	<hr/>	<hr/>
TOTAL	1,381	2,764	4,145
	<hr/>	<hr/>	<hr/>

Wage Policy of the Oil Company:

The basic rates of pay of the Company's workers were raised during the year and ranged from the minimum of \$4.22 per day for unskilled to \$11.00 per diem for the highest skilled artisans. Out of 4,145 (4,320 the previous year) workers employed by the Company some 257 only are on minimum rates.

Some additional 2,000 workers are employed by contractors operating on behalf of the Company within the oilfield area. The Company endeavours to safeguard the interests of such labour by inserting in the contract a clause binding the Contractor to observe Brunei legislation affecting the conditions of employment in the State. Constant scrutiny and inspection is undertaken by the Company and the Commissioner of Labour to ensure that such legislation is observed.

Additional features of the Company's wage policy include a temporary cost of living allowance at the rate of 15 per cent of basic pay for married and 10 per cent for single worker, schemes of allowances for workmen working in areas where living accommodation, amenities, etc., are temporarily below the standard provided elsewhere. Other allowances additional to normal pay are given for such work as diving, work of an exceptionally dirty nature, standing by, etc.

Hours of work are $43\frac{1}{2}$ per week, the working week consisting of $5\frac{1}{2}$ days. Shift workers do, however, work 6 shifts of 8 hours per week; but these men are paid a bonus for the afternoon and night shift.

Fifty per cent extra pay is paid for all overtime worked. Employees receive annually two weeks' leave with pay, and, when absent from work through sickness, they receive full pay and cost of living allowance for the first two, and half pay plus high cost of living allowance for the next 10 weeks.

On retirement the Company pay an ex gratia payment in accordance with its own regulations on the basis of service and last rate of pay.

Of the welfare and amenities provided by the Company for its staff and workers the following are of interest:—

Health and Medical Services:

From its inception the Company has provided its own medical and health services. These have been open not only to employees, but also to their dependants. The Company operates a well equipped hospital at Kuala Belait with modern X-ray installations and full equipment for medical and surgical treatment and laboratory examinations. In addition to the hospital there are dispensaries and First Aid points throughout the oilfields to deal locally with staff and labour. These are coupled with an emergency medical and ambulance service which covers the oilfield areas and conveys patients rapidly to the Kuala Belait hospital. For maternal and child welfare the Company runs a pre- and post-natal clinic.

A joint Company and Government campaign against malaria is maintained. All new arrivals are checked for malaria infection and active measures are taken to eliminate the mosquitoes by draining and spraying potential breeding grounds.

Clubs:

There are four clubs for labour force employees in the Seria oilfield and each is run by a management committee elected from the club members. Although the policy is one of non-interference the Company takes considerable interest in their activities, assisting whenever necessary.

Recreation and sports amongst its employees have always been strongly encouraged by the Company and the clubs each have their facilities and equipment for football, cricket, hockey, badminton, volley ball and other games.

For the Regional Staff (Senior Asian Staff) there is a recreation club offering similar facilities.

The Kuala Belait Recreation Club, the only club in the area with no Company affiliations, continues to enjoy support. Members, including Company and Government employees and members of the commercial community, with widely differing interests, have found it a most valuable common meeting ground.

Cinema:

The oil company operates a cinema of permanent open construction at Seria. Shows are held daily and include British, American, Malay, Chinese and Indian films.

Transport:

The oil company provides free transport for its workmen to and from work.

Joint Consultation:

An effective channel of communication exists between the Company and their workers. Labour representatives who are elected annually meet the management once a month and discuss working conditions, disputes, grievances and other matters affecting mutual relations and understanding. They are composed of ten Malays, ten Chinese, five Indian and five Iban members, roughly in proportion to their labour strengths.

The Management Chairman is the Labour Officer. The Industrial Relations Officer, the Assistant Operations Superintendent, a senior engineering representative and other technical representatives attend from time to time to accord with the subject matter of the agenda, for example in any medical discussions the Chief Medical Officer would attend.

The scope of the discussions are very wide and, excepting individual cases, may consider any question concerning working conditions in general and any proposal by the workers or by the Company in regard to the promotion of industrial relations, improved production and efficiency.

Examples of subjects discussed during the year were housing, provision of transport, increased shift rates, medical and health, provision of bus shelters, leave, retirement gratuities, grading of jobs, wages and allowances, housing, leave passages and rotation of employment at outstations.

In this way an effective channel of communication exists between the Company and its workers with a view to promoting a good management-employee relationship, so essential to an organisation of this nature.

Housing:

The housing programme continued to progress and most of the labour and regional staff are now housed to a standard that compares favourably with any other employer in the world.

Safety:

Since 1950 the Company has made a great effort to improve safety precautions and to reduce its accident rate. A safety department under an experienced officer specially trained in safety work is actively engaged in the investigation of accidents and the inspection of plant and operations. A detailed analysis of accident statistics is made in order to determine the chief causes and so indicate the type of campaign required to combat them, for example, whether by way of propaganda, mechanical safeguards, protective equipment, training, lectures or disciplinary action.

The safety department has the full support of management and by tact and enthusiasm has obtained the co-operation of Department Heads. This has enabled a considerable improvement in the overall accident frequency rate.

Education:

In addition to subsidising the attendance of children of its workers at non-Company schools in Seria and Kuala Belait, the oil company runs a Technical Trade School at Seria. This provides a three-year apprentice course and gives practical training in fitting, turning, motor and diesel mechanics, welding and blacksmithing; on the theoretical side there is instruction in the theory of mechanics, workshop practice, electricity, mathematics and machine drawing. During the first year the apprentices do a full school course equally divided between the classroom and the school workshops. In the second and third years 70 per cent of the time is spent in the Company's workshops and 30 per cent in the classroom.

Entry to either Trade School is still open to pupils from any school in British Borneo but with the Brunei English Schools now reaching the stage in their development where they can provide candidates with secondary school qualifications the seeking of candidates from outside Brunei is being reduced.

To illustrate the growth of the Trade School the number of apprentices at the end of 1952 was 67. Comparable figure for 1953, 1954, 1955 and 1956 is respectively 100, 130, 141 and 167.

In 1953 the Company and the Government negotiated a scheme whereby the Company would take 25 Brunei youths annually for three years. This scheme is progressing and these youths are making good progress.

The Company also grants a number of scholarships to the children of Labour and Regional Staff to enable them to pass the Senior Cambridge Examination. The recipient of these awards is in no way bound to enter Company employment on completion of the scholarship.

The Trade School buildings housing these apprentices consist of some five blocks for the purpose of housing, feeding and instructing them on the lines of a modern English Public School.

General:

The following table shows the racial distributions of Labour employed by the main sources of occupation outside the oil company:—

<i>Race</i>	<i>Government (Public Works)</i>	<i>Rubber</i>	<i>Sawmills & Woodworking</i>	<i>Total</i>
Malays	1,922	289	160	2,371
Ibans	1,194	25	164	383
Chinese	113	31	191	335
Indians	9	3	—	12
Javanese	1	9	3	13
Others	10	11	14	35
	<hr/> 2,249 <hr/>	<hr/> 368 <hr/>	<hr/> 532 <hr/>	<hr/> 3,149 <hr/>

The Labour Commissioner for Brunei, is also the Labour Commissioner for Sarawak and is normally stationed in the oil-fields at Kuala Belait. All Assistant Residents are Deputy Commissioners of Labour and are responsible within their Districts for enforcing labour legislation and for the periodical inspection of places of employment.

An up-to-date Labour Ordinance embodying the principles of the International Labour Conventions exists. Enacted in 1954, it gives workers protection in such matters as hours of work, health conditions, the age of admission to employment, medical treatment, provision of written contracts of employment, notice pay and conditions of extraterritorial recruitment. A new up-to-date Workmen's Compensation Bill is about to be enacted. Similarly a new Factory Ordinance is being considered.

The cost of living was stable during 1956. Taking 1952 as 100 the average cost of living throughout the year was 97.00. This compares with 93.61 for the previous year. The limits of monthly oscillation were between the figures of 93.35 and 104.58. These figures are based on the cost of reasonable living requirements of a workman, his wife and three children.

With the exception of one minor strike Brunei State was free from Labour unrest during 1956. Minor cases of wage disagreements were settled without difficulty by either the Commissioner or Deputy Commissioner of Labour. Industrial disputes are rare. Demand for labour is in excess of supply and wages are generally high.

CHAPTER III

PUBLIC FINANCE AND TAXATION

Revenue and Expenditure:

REVENUE for the year 1956 totalled \$118,294,880 and details of the main collections are given below, together with the comparative figures for 1954 and 1955:—

	1956 \$	1955 \$	1954 \$
Duties, Licences and Taxes	59,100,207	54,225,597	58,845,608
Fees of Court, etc.	492,778	432,545	373,275
Government Undertakings	2,936,199	4,036,163	694,881
Revenue from Government Property	39,764,716	31,896,451	26,811,723
Interest, Currency, etc.	14,942,165	11,176,716	8,747,719
Miscellaneous Receipts	1,036,267	552,892	418,838
Land Sales	22,248	349,059	143,350
	<u>118,294,880</u>	<u>102,669,423</u>	<u>96,035,394</u>

Expenditure for the year 1956, on Part I Heads, amounted to \$29,915,273, and details of that expenditure are given hereunder. Comparative figures for 1954 and 1955 are also shown.

	1956 \$	1955 \$	1954 \$
1. H.H. the Sultan	337,605	300,933	312,842
2. Ministers	84,097	63,978	63,203
3. Administration	808,648	868,068	626,422
4. Agriculture	589,852	566,679	518,875
5. Audit	41,482	36,140	28,833
6. Civil Aviation	35,829	52,331	—
7. Customs (a)	295,107	—	—

	1956	1955	1954
	\$	\$	\$
8. Education	1,824,675	1,179,511	783,935
9. Electrical	653,584	721,937	538,855
10. Forests	129,921	106,456	99,683
11. Information Service	118,420	110,276	74,824
12. Judicial	48,310	37,767	27,061
13. Labour	23,441	30,317	15,261
14. Legal	43,689	30,074	25,713
15. Marine	800,479	995,606	532,895
16. Medical and Health	1,891,498	1,690,065	1,398,482
17. Miscellaneous Services	7,726,637	5,037,002	1,868,316
18. Municipal	3,079,681	584,311	435,187
19. Pensions and Gratuities	690,879	174,701	168,309
20. Police	1,637,663	1,042,003	859,898
21. Postal Services	301,486	253,276	213,966
22. Prisons	48,440	39,525	59,398
23. Public Works Department	1,951,114	490,042	451,669
24. Public Works Recurrent	2,848,555	1,519,182	1,403,665
25. Public Works Non- Recurrent	6,698,132	7,599,705	10,984,011
26. Religious Affairs, State Customs and Welfare	227,665	135,456	101,074
27. State Pensions and National Registration (b)	646,720	4,113	3,802
28. State Stores and Supplies	1,984,546	3,608,330	813,582
29. Survey	845,259	504,187	419,199
30. Telecommunications	886,342	866,631	448,200
31. Treasury	161,338	120,151	83,725
	<u>29,915,273</u>	<u>28,768,753</u>	<u>23,360,885</u>

(a) The Customs and Marine Departments were administered as one department until the end of 1955, and expenditure for these years 1954 and 1955 appears under Head 15 Marine. In 1956 the departments were administered separately and the expenditure divided.

(b) The State Pensions Scheme was administered as a Development project in 1955, the first year in which such pensions were paid, and the sum of \$521,132 was expended in that year. In 1956 the payment of pensions was included in the normal budget of the State.

The 1956 Revenue exceeded Part I Expenditure by \$88,379,607. A comparative table for the years 1954 to 1956 is given below:—

	1956 \$	1955 \$	1954 \$
Revenue	1,118,294,880	102,669,423	96,035,394
Expenditure	29,915,273	28,933,959	23,360,885
Surplus for year	<u>88,379,607</u>	<u>73,735,464</u>	<u>72,674,509</u>

Development Expenditure:

Development expenditure in 1956 totalled \$18,233,656, an increase of \$4,165,341 over 1955. Total Development Expenditure to 31st December, 1956 was \$40,785,271 made up as follows:—

	\$
1953	1,006,100
1954	7,279,959
1955	14,265,556
1956	18,233,656
	<u>40,785,271</u>

\$59,214,729 thus remained in the Development Fund at the end of 1956 out of the total allocation of \$100,000,000. Detailed expenditure on Development Schemes in 1956 is as under:—

	\$
41. Land Utilization Surveys	33,110
42. Industrial Surveys	41,696
43. Town Planning	2,139
50. Rubber Development	57,680
51. Wet Padi Irrigation	38,604
52. Mechanical Cultivation of Padi	207,060
54. Electricity — Brunei	217,958
55. Electricity — Kuala Belait	137,423
56A. Electricity — Tutong, etc.	80,222
57. Water Supplies — Rural Areas	141,602
58. Water Supplies — Brunei Town	16,613
59. Gas Supplies	78,625

	\$
60. Road Programme	9,131,229
61. Bridle Paths	53,615
62. Brunei Airport	1,152,556
63. Kuala Belait Wharf	118,059
64. Brunei Port	64,806
65. River Clearing	207,783
66. Land Reclamation	911,836
68. Training of Silversmiths	908
69. Assistance to Fishermen	14,521
70. New Brunei Hospital	5,415
71. Kuala Belait Hospital	7,815
75. Rural Health Centres	709
82. Building Grants	96,000
83. Brunei Secondary School (Boys)	774,193
84. Brunei Secondary School (Girls)	289,563
85. Seria Secondary School (Mixed)	83,923
86. S.M.J.A. Girls School	282,563
87. Seria Malay School	187,321
88. Kuala Belait Malay School	209,108
90A. Kampong Ayer Malay School (Boys)	426
91. Primary Schools	1,514,922
92. School Feeding Scheme	583,118
93. Broadcasting	105,861
94. Housing	260,061
95. Resettlement Schemes	56,473
96. Sports and Clubs	366
97. Sewerage Schemes	12,556
100. Administration	47,159
101. Public Works Compound	285,006
102. Heavy Equipment	145,721
103. Workshops and Mobile Maintenance	300,070
104. Quarters and Rest House	277,062
	<hr/>
	\$18,233,656

Financial Statement:

Details of the Statement of Assets and Liabilities as at 31st December, 1956, were—

<i>Assets</i>	<i>1956</i> \$	<i>1955</i> \$
Investments—General Reserve Fund	222,449,809	193,188,775
Investments—General Revenue and Development Fund	199,536,276	160,490,437
Cash in Treasury and Banks	1,105,585	4,634,905
Sundry Debtors	1,127,876	55,489
	<hr/> 424,219,546 <hr/>	<hr/> 358,912,789 <hr/>
 <i>Liabilities</i>	 <i>1956</i> \$	 <i>1955</i> \$
General Reserve Fund	222,449,809	193,188,775
General Revenue Balances	141,102,370	87,218,199
Development Fund	59,214,729	77,448,385
Sundry Creditors	1,452,638	1,057,430
	<hr/> 424,219,546 <hr/>	<hr/> 358,912,789 <hr/>

A sum of \$29,261,034 was transferred from General Revenue Balances to General Reserve Fund in 1956.

Public Debt:

There is no public debt.

Customs and Excise:

Import duties are levied on importations, the principal items being intoxicating liquors, tobacco, sugar, petroleum products, textiles and motor cars, and export duties are levied upon certain products including rubber, copra, sago and livestock. The total import duty collected in 1956 was \$4,165,180 and the export duties totalled \$135,179.

A change was made in the Customs tariff late in 1956, increasing the rate of Customs duty levied upon imports of intoxicating liquors.

Excise duty is levied on locally distilled *samsu*, which is the only alcoholic beverage manufactured for sale in Brunei.

Stamp Duties and Other Taxes:

Stamp duties are levied in accordance with the provisions of the Stamp Enactment, and include a stamp duty on cheques, bills of exchange, etc., affidavits, contracts and vending agreements.

Estate duty is levied under the Stamp Enactment upon all estates the value of which exceeds \$1,000 and the rates are as follows:—

Where the principal value of the estate—

exceeds \$	1,000 and does not exceed \$	5,000—	1%
exceeds	5,000 and does not exceed	10,000—	2%
exceeds	10,000 and does not exceed	25,000—	3%
exceeds	25,000 and does not exceed	50,000—	4%
exceeds	50,000 and does not exceed	100,000—	5%
exceeds	100,000 and does not exceed	150,000—	6%
exceeds	150,000 and does not exceed	200,000—	7%
exceeds	200,000 and does not exceed	300,000—	8%
exceeds	300,000 and does not exceed	400,000—	9%
exceeds	400,000 and does not exceed	500,000—	10%
exceeds	500,000 and does not exceed	750,000—	11%
exceeds	750,000 and does not exceed	1,000,000—	12%
exceeds	1,000,000 and does not exceed	1,250,000—	13%
exceeds	1,250,000 and does not exceed	1,500,000—	14%
exceeds	1,500,000 and does not exceed	2,000,000—	15%
exceeds	2,000,000 and does not exceed	3,000,000—	16%
exceeds	3,000,000 and does not exceed	5,000,000—	17%
exceeds	5,000,000 and does not exceed	7,000,000—	18%
exceeds	7,000,000 and does not exceed	10,000,000—	19%
exceeds	10,000,000	... ..	—20%

Income Tax:

Income tax is charged, levied and collected under the provisions of the Income Tax Enactment, 1949, but at present only in respect of the incomes of registered limited companies. On every dollar of the chargeable incomes of such companies income tax is levied at the rate of 30 per cent. There are reliefs in respect of tax paid in some other Commonwealth countries.

CHAPTER IV

CURRENCY AND BANKING

Currency:

THE State is a member of the Board of Commissioners of Currency, Malaya and British Borneo, being a party to the Malayan, North Borneo Currency Agreement and only currency issued by that Board is legal tender in Brunei. The dollar is valued at 2/4d. (sterling). On the 31st December, 1956, the amount of Malayan, British Borneo currency in circulation was approximately \$52,500,000 and the average circulation for the year was just over \$48,000,000.

Being a member of the sterling area group, foreign exchange control is exercised within the State and in 1956 a new Exchange Control Enactment was introduced. This enactment became operative with effect from 1st January, 1957. The enactment is a modifying one entirely and no new restrictions were introduced as a result of it. Previous restrictions and regulations had been operated under the provisions of various proclamations and regulations issued during the British Military Administration period. It was thought desirable to make provision now under a Brunei Enactment.

Banking:

The Hongkong & Shanghai Banking Corporation which has branches in Brunei Town and Kuala Belait provides the sole banking facilities in the State of Brunei.

In 1956 the Banking Enactment was passed by the State Council and was brought into operation with effect from 1st January, 1957. This enactment lays down various terms and conditions under which banking business can be carried on in the State of Brunei. To date the only licenced bank under this new enactment is the Hongkong & Shanghai Banking Corporation.

This Corporation also operates a Savings Bank and at 31st December, 1956, deposits in such Savings Bank amounted to just over \$1,000,000.

Post Office Savings Bank:

The number of depositors in the Post Office Savings Bank at the end of 1956 was 1,961 as against 1,872 at the end of the previous year, although the amount standing to the credit of depositors showed a slight reduction. The figures of deposits in the Savings Bank for the period 31st December, 1951 to 31st December, 1956, are given in the following table:—

<i>Year</i>	<i>Number of Depositors</i>	<i>Amount of Deposits</i>
31.12.51	928	\$265,605
31.12.52	1,162	374,122
31.12.53	1,399	521,378
31.12.54	1,665	608,589
31.12.55	1,872	670,633
31.12.56	1,961	600,165

CHAPTER V

COMMERCE

TRADE and commerce in Brunei is conducted by an increasing number of agency houses and Chinese merchants. The most important of the agency houses are the leading European firms and they are responsible mainly for the import of goods direct from Great Britain, Australia and other sources. The number of Chinese merchants holding important agencies, however, is on the increase, although the majority prefer to deal in the wholesale and retail distribution of goods purchased from merchants in Singapore, with whom they have had long established connections.

The Chinese merchants are responsible for the purchase of rubber and other jungle produce from the small holder and they provide the up-river population with sundry goods in exchange.

The whole of the import and export trade is carried on in two ports of the State, that is Brunei Town and Kuala Belait, and it is at these two towns that the principal firms have established their business houses.

External Trade:

The value of the external trade of the State for the year 1956 was \$444,375,194 compared with \$396,802,916 in 1955, an increase of \$47,572,278.

The trade figures are made up as follows:—

	1956	1955
Total value of exports	\$330,291,877	\$303,418,823
Total value of imports	\$114,083,317	\$ 93,384,093
Favourable trade balance	<u>\$216,208,560</u>	<u>\$210,034,730</u>

Exports:

The f.o.b. value of exports for 1956 was \$330,291,877 made up as follows:—

	1956	1955
Crude Oil	\$309,308,981	\$286,920,405
Rubber (plantation)	3,877,662	3,569,958
Firewood, mangrove	70,890	104,340
<i>Jelutong</i> Rubber	308,411	360,664
Natural Gas	694,780	654,364
Sundries (including re-export)	16,031,153	11,809,092
	<u>\$330,291,877</u>	<u>\$303,418,823</u>

Imports:

The declared value of imports for 1956 was \$114,083,317 made up as follows:—

	1956	1955
Food	\$16,220,491	\$17,993,823
Beverages and Tobacco	4,350,895	3,830,632
Petroleum and Petroleum Products	2,508,951	2,975,220
Textiles and Wearing Apparel	3,460,870	2,896,732
Chemical and Drugs	2,357,381	2,481,578
Machinery and Transport Equipment	25,287,911	21,753,059
Building Materials	21,636,942	14,899,034
Exposed Cinematograph Films	13,100,250	14,843,650
Manufactured articles and sundries	25,159,626	11,710,365
	<u>\$114,083,317</u>	<u>\$93,384,093</u>

Cargo Tonnage:

The total tonnage of cargo discharged and loaded for the year 1956 was as follows:—

	<i>Discharged</i> (Tons)	<i>Loaded</i> (Tons)
Brunei Town	63,484	14,962
Kuala Belait	101,719	34,159
Total:	<u>165,203 tons</u>	<u>49,121 tons</u>

The new Customs offices and godowns constructed at Kuala Belait during 1955 were put into use during the past year. Work on the new Customs House at Brunei Town was impeded towards the end of the year due to inclement weather and delay in arrival of essential materials from the United Kingdom. It is hoped, however, to open this building early in 1957. The buildings and wharves at both places have been constructed with a view to providing adequate space and cargo handling facilities to enable cargo to be handled and sorted on the wharves and in the godowns more efficiently and thereby assist in the speedier turn round of ships. The offices and godowns at Brunei Town will, when completed, be the most up to date within the three Borneo territories. The Straits Steamship Company have three vessels operating on a full time run from Malaya and Borneo ports to Brunei. Vessels are now calling on a regular monthly schedule from Hong Kong.

Customs Revenue:

The total Customs revenue for 1956 amounted to \$4,300,330.

	1956	1955
Export Duties	\$ 135,168.09	\$ 178,179.75
Import Duties	4,165,162.10	3,826,125.61
	<hr/>	<hr/>
	\$4,300,330.19	\$4,004,305.36
	<hr/>	<hr/>

The decrease in the revenue from export duties was occasioned by the decrease in the value and amount of plantation rubber exported during the year after deducting the value and amount of plantation rubber exported from Government estates.

Tariff:

The following alterations were made to the Customs Tariff during 1956:—

Import duties were increase on intoxicating liquors so as to bring them in line with those in force in Sarawak and North Borneo.

Legislation:

The following were the principal changes during 1956:—

9.2.56 Notification No. 48/1956 Customs Duties (Exemption)
Order, 1956.

27.6.56 Notification No. 155/1956 Customs (Establishment of Customs Warehouses & Warehouse Rent) (Amendment) Order, 1956.

Excise:

The only alcoholic beverage distilled in the State is *samsu*, the product of three distilleries. Excise duty is chargeable at \$5 per gallon and duty collected in 1956 amounted to \$27,827 as compared with \$32,260 in 1955.

Trade Correspondence:

The Controller of Customs and Excise is designated as the United Kingdom Trade Correspondent for the State of Brunei. Numerous enquiries were received during the year from various business firms in other parts of the world and appropriate action was taken in respect of each.

CHAPTER VI

(a) LAND UTILIZATION AND TENURE

(i) *Utilization of agricultural land.*

ANY native of Brunei, or any non-native of over seven years unbroken residence in Brunei, may acquire land in perpetuity in the State for agricultural purposes. Non-natives who have less than seven years residential qualification may also acquire land with the approval of the State Council but such approval is usually granted for lease of a shorter term.

The method of application for State land must be in writing on a prescribed form and be accompanied by a deposit of \$5.00; must be addressed to the Assistant Collector of Land and Revenue of the District in which the land is situated, and must give an address and be signed in full by the applicant. On receipt of the application it is the duty of the Assistant Collector of Land and Revenue to ascertain the accuracy of its details and if any doubts exist he should return the application asking for further details. Normally applications should also be referred to the Agricultural Department with a view to getting information as to the suitability of the land or otherwise for the cultivation of the crops specified and also to the Forest Department in case there are any valuable trees on the land. When an application is approved for land to be held under a title, the Assistant Collector of Land and Revenue calls upon the applicant to pay the premium, land rent, registration and other fees. The application is then sent across to the Survey Department for final survey.

In recent years the value of agricultural land, particularly near the larger towns, has been considerably enhanced. This has led to villagers desiring to take out a title to their land. Originally a 'Kampong' was set aside as a parcel of land for all purposes. Since the war the tendency has been increasingly towards the break-up of the old compact 'Kampong' and many villagers are acquiring a small holding of three to four acres for both residential and

agricultural purposes. This applies more particularly to the Kedayan element of the community. The result has been a very marked increase in the number of applications received annually.

A further complication in this work has been that in past years many villagers have planted slow growing fruit trees indiscriminately over the countryside. They are now seeking to take up under permanent title ancestral fruit groves, thus entailing considerable difficulty in the practical work of survey.

District Officers and others are giving considerable encouragement to villagers to take out a title for an agricultural lot. Notwithstanding this, it continues to be the policy of Government to set aside an area near each 'Kampong' for buffalo grazing. This is scheduled as a reserve and, whereas no grant to the 'Kampong' is issued, it is not subject to alienation to others. This is the most economic means of ensuring the maximum use of grazing land and also that interference by buffalo with crops is reduced to a minimum.

With the advent of the bicycle to practically every home, the tendency has been throughout the year to develop land along existing roads and tracks and to obtain title to that land. Away from the towns there are still very large reserves of excellent agricultural land awaiting development. New roads are being constructed to open up such areas. In other areas Government is carrying out large scale re-settlement schemes.

(ii) *Land and water Conservation and Utilization.*

By a notification issued in 1951, road and river reserves have been imposed on all roads and all major rivers within the State. New grants of land during 1955 were not allowed to encroach upon these reserves but in regard to titles hitherto issued it has been necessary for Government to pay compensation before taking over land required for road expansion and river clearing. Under the Forest Enactment it is illegal for any person to fell primary forest for the purpose of agriculture without first obtaining permission from the State Forest Officer and District Officer. Such permission is normally withheld unless the applicant can show that there is no vacant and suitable land available.

(iii) *Land Ownership.*

Government policy in regard to agricultural land has been detailed above; agricultural land is normally leased in perpetuity to natives or to non-natives of over seven years residence in the State. For the purpose of such alienation agricultural land may be divided into three classes as follows:—

- (a) small holdings not exceeding 10 acres in area
- (b) medium holdings not exceeding 100 acres in area, and
- (c) large holdings exceeding 100 acres in area.

For padi and rumbia there is no premium but a rent of 40 cents per acre per annum is payable after five years.

Terms for medium holders vary slightly.

Rubber:

Premium—

(a) with road frontage per acre	...	...	\$2.00
(b) without road frontage per acre	...	...	\$1.00
(c) rent for the first six years per acre per annum			\$0.50
(d) rent thereafter per acre per annum	...	...	\$2.50

Coconut and other forms of cultivation:

Premium—

(a) with road frontage per acre	...	...	\$1.00
(b) without road frontage per acre	...	...	\$0.50
(c) rent for the first six years per acre per annum			\$0.50
(d) rent thereafter per acre per annum	...	...	\$1.00

The terms for large holdings are as follows:—

Premium—\$2, \$3 or \$4 per acre according to quality and situation of the land.

Rent—same as for medium holdings.

In regard to land within the Municipal Area, or to land outside Municipal Area required for other purposes than agriculture, there is no definite scale of fees payable. The terms of leases vary widely depending upon the purpose for which the land is required. Thus the new permanent shop houses are rented on a ninety-nine years lease but land required near Brunei Town by contractors on Development Scheme work is proposed on a five-years lease only. Premium and rent likewise vary considerably depending on the nature of the land, its use and the length of time for which it is to be leased.

In addition to the methods of alienation described above there is also the Temporary Occupation Licence which is available to any person whether native or non-native on payment of \$1 per acre per annum. This licence is not renewable and is subject to cancellation at the end of the year and it prescribes therefore that no permanent crops may be planted nor permanent buildings erected on the land. This form of licence is most frequently issued to a person who has made application for a permanent grant but who may have to wait a considerable time before the final issue of that grant. Such applications are not normally turned down and a Temporary Occupation Licence enables the would-be applicant to make immediately a start in the development of the land. Finally it should be noted that no Grant or Title is issued to any persons living in the Malay traditional style over water. His right to remain there is vested only in native custom.

(b) AGRICULTURE

WEATHER

Rainfall for the first three and the last four months of the year was heavy, and during the middle of the year was normal. Appendix "D" shows records and comparisons for the various districts in the State.

CROP REPORTS

Rubber:

The acreage of rubber has been increased by 343 acres, which has been planted with budded seedlings supplied by the Government Rubber Nursery, Berekas. There were 282 rubber planters who applied for 235,000 seedlings for planting an area covering 1,175 acres. Only 118 rubber planters so far have been supplied with 68,000 budded seedlings. A total of 33,575 acres were already planted with rubber in the State up to the end of the year. In order to cope with the greater demand for planting materials, ten more acres were prepared for next year's seedlings.

Local seedlings which were planted by the small holders were being budded by the Department Rubber Budders from trees of high yielding clone.

The price of rubber remained steady at approximately \$100/- per picul but rose considerably above this during the last quarter. Except for June and September the production remained steady, but in November and December there was a considerable increase due to the increase of price to approximately \$120/- per picul.

Planters were mainly content to sell unsmoked rubber sheet in spite of every encouragement being given by Government for planters to build smoke houses in their gardens.

Diseases:

Mouldy Rot, *Cerastomella fimbriata*, continues to be of general incidence in most holdings, but this is not a serious condition due to the constant supply of fungicide for the control of this disease in all known affected areas.

Termites, *Coptotermes curvignatus*, are still prevalent in certain rubber areas. Termites are very hard to eradicate.

Padi Season 1955/56:

Wet padi cultivation covered 913 acres less than that of last year and the yield decreased from 1,805,080 gantangs to 797,115 gantangs. The decrease was due to the withdrawal of many farmers who went to work in the Public Works Department, with private contractors or the Brunei Shell Petroleum Company.

The area under dry padi cultivation was increased by 304 acres which yielded 90,529 gantangs more than that of last year. Crops were slightly damaged by rats, *Ratus ratus*, Rice bugs, *Leptocorisa acuta* Thnbg., and Narrow Brown Leaf Spot, *Cercospora oryzae* Miyake. Rain was favourable during the vegetative stage.

Padi Season 1956/57:

The area, according to the reports from the three districts, in wet padi cultivation was 168.75 acres less than that of the previous season. That shows that more padi farmers continue to drift from the land to the oil company or to the Public Works Department and contractors employed on development projects.

Dry padi cultivation continues to increase, even though the production could be double that of the previous season. The area cultivated was 3,263.50 acres which is 748.50 acres more than that of the last season. The increase made every year may be due to the planters preferring the easier method of shifting cultivation and thus may continue until they have a failure in rainfall, which will cause considerable hardship, making them go back to the swamp padi cultivation.

Cost of Construction and Maintenance of Drainage and Irrigation:

<i>Districts.</i>	<i>New Construction in chains</i>	<i>Cost</i>	<i>Clearing of old drain in chains</i>	<i>Cost</i>
Brunei	1,089	\$22,506.00	210	\$1,880.00
Temburong	40	760.00	—	—
	1,129	\$23,266.00	210	\$1,880.00

Wet Padi Surveys:

Progress on the Mulaut padi scheme reported on last year was satisfactory. It has also been decided that the water must be pumped from the Limbang river in Sarawak, and negotiations with Sarawak are proceeding.

Sago:

The growing of sago is confined to the Tutong, Kuala Belait and Temburong riverine areas. The total production was 2,390.75 piculs, of which 448.28 piculs were exported to Sarawak. There was an increase of 43 acres newly planted under this crop in Kuala Belait which adds to the approximate area of 2,500 acres planted. Raw Sago is mostly used to supplement rice by most of the producers and the by-products for feeding pigs.

Coconut:

The Government is encouraging the growing of more coconuts in the State by giving loans and importing planting materials for distribution. The Luahan Coconut Station is intended for research pertaining to the coconut industry. Coconut trees in the station are promising and it is hoped that this will encourage

more land owners to go in for coconut planting. There were 10,335 seedlings available in the station ready for distribution to the small holders.

In the Temburong district the Labu Estates planted 303 acres of coconut during the year, and in Tutong district new planting amounted to 23 acres. The estimated acreage already planted under this crop in the State is 2,316 acres.

Most of the nuts harvested by the peasants are chiefly used for local consumption.

Fruits:

No variety of fruit trees has been planted on any scale in the State. Up to the end of the year more and more farmers applied for land for fruit growing. In areas where fruit trees are satisfactorily grown fruit nurseries were opened up in order to supply the great demand for planting materials. Agricultural Extention staff encourage and teach the planters on better planting methods and plant propagation. A few fruit growers in the villages have started planting budded rambutan and citrus on a bigger scale than before. The total area planted under fruit trees was 1,714 acres of which there was an increase of 153 acres this year.

The constant introduction of other varieties of fruit trees into the State will eventually help to enrich the daily diet of the people. These fruit trees will be under observation before they are distributed to the growers.

A research on stem cutting propagation was carried out in the middle of the year by using root-inducing hormone (Seradex B). It was found that pomelo "*Limau Besar*", *Citrus grandis Osbeck*, reacted successfully. Further study is being carried out for trial on other fruit trees.

Fruits mainly sold in the markets are bananas, *citrus*, *rambutan*, pineapple, *durian*, *belunu* and *kambayau*. The increasing of fruit planting in the State was shown by the great demand of planting materials from the Agricultural Stations.

MARKET GARDENS

The Agricultural Department is encouraging bigger scale vegetable production in Brunei District by giving prizes to the first, second and third *Kampong* producing the most sold in the market. The prizes were in the form of fertiliser. In this year's competition *Kampong* Subok produced the most and was given five piculs of fertiliser; *Kampong* Salar got second and was given three piculs; and *Kampong* Lumapas got the third place and was given two piculs of fertiliser. The fertiliser was divided among the vegetable growers in the kampongs.

Market gardening in Brunei Town, Kuala Belait and Seria is mostly undertaken by Chinese small holders and it is regretted that few Malays are undertaking this work. Vegetable gardening along the seashore in Seria shows progress but only with heavy application of fertiliser. The vegetable growers living up river in the Kuala Belait district bring their crops by boat to Seria or Kuala Belait markets.

AGRICULTURAL AND PADI TEST STATIONS

Agricultural Station, Kilanas:

This station is the distributing centre in Brunei for the three districts. All plants and animals from abroad are subject to trial and study there. Machines for cultivation and other agricultural implements are being tried out here in order to see whether they can be effectively used in the State. Continuous experiments with the use of chemicals, in the control of pests and diseases, in the eradication of weeds and in plant propagation are being carried out at this station.

Upkeep and maintenance on all projects of the station were carried out satisfactorily. Great quantities of planting materials were sold and distributed free to the bona fide small-holders and other Agricultural Stations. The distribution of planting materials was as follows:—

Rambutan (budded)	520
Rambutan (seedlings)	126
Citrus (budded)	218
Citrus (marcot)	282

Citrus (seedlings)	701
Pulasan (budded)	7
Mango Manila (budded)	39
Jambu (marcot)	41
Jambu (seedlings)	140
Duku (seedlings)	140
Durian Belanda (seedlings)	83
Manggis (seedlings)	200
Coffee (seedlings)	663
Papaya (seedlings)	281
Mata Kuching (seedlings)	30
Total	<hr/> 3,571 <hr/>

PADI SEASON 1955/1956—RESULTS OF PADI RESEARCH

A. *Variety Trial Latin Square:*

The analysis of results shows that the difference in yield among the five local varieties were very highly significant. *Langsat Puteh* a dry padi variety with a mean yield of 24.70 gantangs, gave significantly the highest yield; *Terangganu*, *Engkatek* and *Langsat Kuning*, with a mean of 18.30, 16.30 and 18.60 gantangs, respectively, did not differ significantly in their yield. *Siam 29*, with a mean of 13.50 gantangs, gave significantly the lowest yield. For mechanized production of padi, *Engkatek* may be tried, for unlike the four other varieties, it is short and does not lodge.

B. *Manurial Trial Latin Square:*

The analysis of results on both varieties *Langsat Puteh* and *Engkatek* with the same fertiliser treatments 4.25 lbs. and 13 lbs. shows slight significant difference over the control. On the treatments of 4.25 lbs., 8.75 lbs., 13.00 lbs. with equal fertiliser mixture of sulphate of ammonia, superphosphate and limestone dust, did not differ significantly in their yield. The co-efficient of variation on *Langsat Puteh* was 2.51 per cent and *Engkatek* 4.04 per cent the difference of the two experiments was very small. It shows that there was less error variance.

C. *Multiplication Plots:*

Areas not utilised for padi experiments were planted with the promising varieties to be distributed for next year planting.

Padi Season 1956/57:

The padi experiments carried on are—

- (a) Varietal Observation Plots
- (b) Varietal Trial Latin Square
- (c) Manurial Trial Latin Square, *Langsat Puteh* and *Engkatek*
- (d) Cost of Planting One Acre of Padi

(a) Varietal Observation Plot:

It was laid down to observe the agronomic characteristics of the ten wet padi varieties. One hill will be selected for next season planting to improve the variety. The varieties are *Radin Pasir*, *Siam 29*, *Siam 53*, *Siam 64*, *Lantik*, *Langsat Puteh*, *Langsat Kuning*, *Terangganu*, *Engkatek* and *Naga*.

(b) Varietal Trial Latin Square:

The same varieties and treatments were used on the same area as last year.

(c) Manurial Trial Latin Square:

The same varieties *Langsat Puteh* and *Engkatek* were used with the same fertiliser treatments. In one treatment the fertiliser consists of the application of fertiliser while in the vegetative stage, and the other just before the booting stage.

(d) Cost of Planting One Acre of Wet Padi:

Two varieties of wet padi, *Langsat Puteh* and *Langsat Kuning* will be tried in two acre lot to find the cost and length of time in preparing the land in peat soil by trampling (*jijak*) with the use of buffaloes.

CATTLE, BUFFALOES, POULTRY, FRESHWATER FISH AND GOATS

Herefords: These hardy animals are in fair condition. Their heat endurance is not very high, and hence they have to be kept in a shady place during mid-day. This may be due to the high humidity. The bulls it is hoped will upgrade the local cows in the *kampongs* as soon as they have adapted themselves to the conditions in Brunei. These animals have practically no resistance against ticks, and hence, deticking has to be carried out weekly.

Poultry: The main poultry unit is at Kilanas Agricultural Station where selected birds are kept for breeding and chicks sold to the public. The station has sold 577 Rhode Island Red, Light Sussex, Australorps, New Hampshire Red and Chinese Langshans chicks at one week to three months old. There were six Rhode Island Red and one New Hampshire Red cockerel lent for upgrading the local breed in the *kampongs*. A total of 3,579 table eggs and 398 hatching eggs were sold to the public up to the end of the year. Grade 'A' table eggs were sold at 25 cents, Grade 'B' at 22 cents and Grade 'C' for 20 cents. Hatching eggs are sold at 30 cents each.

The following are the breeds in our breeding station:—

1. Rhode Island Red
2. Australorps
3. New Hampshire Red
4. Light Sussex
5. White Leghorns
6. Brown Leghorns
7. Buff Orphingtons
8. Japanese Bantams

Of these, the first four are found suitable for Brunei. White Leghorns do not seem to thrive well in Brunei; observations made on the farm show that they are susceptible to diseases. The rest of the breeds are for experimental purposes in the Station.

Goats: The Saanan goats are a milch breed, that are showing adaptability to the conditions in Brunei. It is a promising breed for crossing with the native goats to improve the size and milking capacity.

Freshwater Fish: A step to introduce fish culture was undertaken by importing freshwater fish from Malaya. The fish are being reared in a concrete pond in Kilanas Agricultural Station. Three species of fish being observed to multiply very rapidly in the concrete pond. Carp and Gourami are bigger fish but late breeders. *Sepat Siam*, *Tricopodus leeri*, was introduced to Brunei from Malaya about the year 1938. It was found to be multiplying very rapidly in creeks as well as in the padi fields. *Sepat Siam* was released in the irrigation canal in the Wet Padi Mechanical Cultivation, Mulaut, in September and have now started breeding.

Wet Padi Mechanical Cultivation Scheme, Mulaut:

The preparation of the site, construction of a large irrigation canal, cutting drains, building earth roads and plot dikes were completed. Pumps, culvert, valves to control water, machinery workshop and impliment shed were erected.

A considerable amount of work was undertaken to modify the Wild Harvester-thresher to suit local conditions. Unfortunately the rice crop had become over ripe by the time the machine was ready, making it impractical to use the machine. It was observed that *Engkatek* variety is best suited for mechanical harvesting due to its short and non-lodging character.

Padi Season 1956/57: Preliminary trials with the cultivating implements were carried out. The bullock's foot roller cultivator proved good on the soft peat clay soil. Conventional mounted implements were tried on a sledge with three-point linkage showing promise for the future. A rotavator mounted on the Country Tractor was found to be effective. Cultivation was found to be much easier, when the grass was cut before using the attached implements.

Most of the crops for next season harvest were planted by hand. A transplanting sledge was successfully developed, but too late for any use during the season. An ILCMA transplanter arrived late in the season and when it was tried it showed some promise. There were some modifications necessary to suit the soil condition in Brunei but by the time these modifications were ready the planting season was over.

Padi Test Plot, Lumapas: Promising padi varieties from North Borneo were compared in yield with *Engkatek*, a padi variety from Sarawak. The yield of *Undus* was 38.5 *gantangs*; Siam 29 41 *gantangs* both of which proved more than the yield of *Engkatek* which was 32.5 *gantangs*. Other local varieties found to be promising are *Mayang Sugumpal*, *Morok Sepilai Kechi*, Siam 53 and *Arat*. The crops suffered slight damage by rats, *Ratus ratus*. Rice Stem Borer, *Schoenobuis incertellus* Walk, and Case Worm, *Nymphula depunctalis* Guen, during the vegetative stage.

Agricultural Station, Birau:

Trial plots of coffee, cocoa, illipe-nuts, pepper, coconuts, bananas, sugar cane, padi, vegetables and fruit trees were planted to test their adaptabilities. The crops growing well are coffee, sugar cane, *rambutan*, *pulasan*, padi, pepper, tobacco and vegetables. All seeds from those productive plots were propagated and distributed or sold to the farmer for commercial planting.

Two varieties of wet padi namely *Nalong* and *Terangganu* were tried with the same treatment as was used last season. Both varieties were found to yield successfully after the land had been prepared by the buffalo trampling method. The production per acre of *Radin Pasir* was 166 *gantangs* and *Lantek* 134 *gantangs*. Slight damage by rats and stem borer was found.

Horticultural Garden, Jalan Istana:

The floriculture garden of one and a half acre is supplying more and more species of ornamental and flowering plants to the public. The Agriculture Department imported 53 packages of 11 species of flowering plants from Globe Nursery, Calcutta, India, and 56 cuttings of 10 varieties of Orchids and 1,000 bulbs of *Gladoili* from Singapore. These flowering plants thrive well in Brunei and they are being propagated for distribution. The garden has sold 927 potted flowering plants, 25 orchids, 133 trees and palms. A total of 1,085 plants were distributed to the public.

(c) ANIMAL HUSBANDRY.

Animal Breeding Farm, Jerudong:

More progress has been made on the farm and experiments in fodder crops were carried out with the object of finding the ones most suited to the environment of Brunei.

The following forage crops were tried:—

1. Guinea grass, *Panicum maximum* Jacq.
2. Guatemala grass, *Tripsacum laxum* Nash
3. Sorghum, *Sorghum vulgare* Pers.
4. *Stylosanthis gracilis*

From observations Guatemala grass, *Stylosanthis* and Sorghum form the best *soilage* crops on the farm. Special mention must be made of *Stylosanthis gracilis*, which is a fast growing perennial legume, propagated by seeds or cuttings. From a trial plot of 1/40 of an acre the computed yield of 5,733 lbs. was obtained from the first year's harvest. This plant seems to be highly adapted to acidic soil.

Trial Paddocks: At present there are 13 half-acre experimental paddocks which were established in the latter part of 1955 with the following grass:

1. Sisek Buaya "Halus" *Desmodium*
2. Sisek Buaya "kasar" *Desmodium ovifolium*
3. *Axonophus compresses*
4. Kulape, *Paspalum conjugatum* Berg.
5. Kampau No. 3
6. Carpet grass, *Axonophus affinis*
7. Bahama grass, *Cynodon dactylon* (L) Pers.
8. Guinea grass, *Panicum maximum*.
9. "Batong Batong"
10. "Gelagah Tikus"
11. Molasses grass, *Melinis minutiplora* Beauv.
12. *Axonophus compresses* and Sisek Buaya "halus"
13. *Axonophus compresses*, "Batong Batong" and "Sisek Buaya".

Observations are being made as to the animal grazing capacity of each of the above plots.

Clover Trail, Jerudong: There were five varieties of clover and four species of grass from Australia that were tried out with regard to their adaptability in Jerudong Breeding Station. The seeds were sown in 1/50 of an acre plots of clay loam and acid soil. The clover seeds were treated with inoculum to ensure growth. It was observed that the germination was very high, but after a few days the shoots died off. This may be due to heavy rain which caused the hardening of the soil.

Animals in other Stations.

Red Sindhi: There are two bulls, six cows and three calves at present. The adults are in fair condition, but the calves are not so healthy. This may be due to the very high humidity and the very heavy tick infestation. One of the bulls at present runs with the local cows for grading and the other for maintaining a pure herd. A total of 420 gallons of milk were produced by six cows on the farm with only one milking a day.

Bali Cattle, Bos sondaicus: These graceful and placid "Banting" are in excellent condition. Though the meat of these animals have no marbling quality, it is relished by the local population. This breed has possibilities as a meat producer in the State.

Local Cattle: They are in a fair condition. The bullocks have been trained for work on the farm.

Swamp Buffaloes: All the hardy swamp buffaloes are in excellent condition. These animals are used for preparing padi fields and hauling materials on the farm.

Goats: All goats are in excellent health as there is an abundance of grass and weeds for browsing.

Veterinary Survey:

This year the work was more of an exploratory nature in animal husbandry investigations. Veterinary aid could not be carried out in certain areas for want of suitable transport.

Livestock: The most important domestic animals in the State are:—

1. The Swamp buffaloes
2. Local cattle (Kelantan type)
3. Pigs
4. Goats
5. Poultry

Buffaloes: The report of the three districts on the annual stock census shows that there were 12,225 buffaloes, an increase of 836 heads as compared with 11,389 heads last year. These hardy buffaloes are mostly in excellent health. Fully grown females weigh approximately 800 lbs. while the fully grown bulls weigh up to 1,200 lbs. Buffaloes are turned loose into swamps and the jungle to graze.

Cattle: The cattle population at the end of the year was 1,336 head a decrease of 97 head as compared with 1,433 head last year. These are mainly of the Kelantan type reared in small herds mainly for meat.

Goats: There were 1,109 head of goats reported at the end of the year with an increase of 338 head as compared with 771 head last year. The method of rearing goats in Brunei is mainly by letting them loose in the yard or by tethering. Most of the goats are in good condition as there is plenty of grass for browsing available at the jungle fringes. A few goats are housed in goat sheds, but this is not encouraged as the sheds are generally low and unhygienic and often showing verminous infestation.

Pigs: The total numbers of pigs in the State at the end of the year was 6,925 head. Pig breeding is usually a Dusun and Chinese undertaking. Many Chinese are keen on breeding pigs for there is a ready market at Seria and Kuala Belait. But due to dietic deficiencies of proteins, mineral and vitamins the gain in weight is very slow. It takes a pig about 14 to 16 months to reach a weight of about 80 lbs. This may be attributed to the scarcity of proteinous feeding stuffs. Most of the Chinese keep the pigs in sties and feed them twice a day, the principal food-stuffs being sago pith, rice bran, coconut cake, dried fish, prawn refuse, water hyacinth and leaves of yams. Dusuns, Ibans and Muruts still keep their pigs on a free range and hence highly infested with worms.

Poultry: The population of poultry in Brunei is roughly estimated to be 300,000 birds. The most popular breeds in urban communities are native breed, Rhode Island Red, Australorp and White Leghorn. Some poultry raisers who have run down their flocks were lent cockerels from selected breeds to improve their

poultry. White Leghorn, a heavy layer which however does not seem to thrive well in the State, was not encouraged for commercial flocks due to its susceptibility to diseases.

The poultry raising is mostly done in the backyards and very few people engage in large-scale poultry farming. Most of the breeds in the kampongs are the indigenous variety, which are very hardy for free range condition.

Diseases:

Cattle and Buffaloes: No outbreak was reported during this year. On the few occasions when the death of cattle and buffaloes was reported, after a post mortem examination they were found to be highly infested with amphistomes. Buffaloe lice are highly prevalent in certain areas which cause extreme debility, anaemia and decreased productivity. Most of the animals show clinical symptoms of Hypocalcemia. A high incidence of calf mortality prevails in buffaloes and cattle due to ascariasis and haemonchosis.

The following parasites of cattle were found and identified:

1. Tape worm (*Moniezia*)
2. Nematoda
 - (a) *Ascaris*
 - (b) *Bunostomum*
 - (c) *Haemonchus*
 - (d) *Trichuris*
3. Eye worm (*Thelazia*)
4. Ticks (*Boophilus*)
5. Coccidia (*Eimeria*)
6. Amphistomes

Goats: No outbreaks of diseases during this year. A few cases of verminous enteritis were treated.

The following worms were found from goats:

1. Tape worms (*Moniezia*)
2. Stomach worm (*Haemonchus*)
3. Whip worm (*Trichuris*)

Pigs: No outbreaks of disease was reported in 1956. Faecal samples revealed a very high incidence of Ascariasis.

Poultry: There was very high incidence of Ranikhet disease throughout the year. To prevent the spread of this disease vaccination was carried out rigorously. A total of 28,894 birds were inoculated up to the end of the year. There is a very great demand for vaccination in Seria, Kuala Belait and Brunei. Vaccination has been extended to Tutong and Temburong Districts where it is gaining popularity.

Agricultural Credit Schemes and Subsidies:

Assistance from the Agricultural Credit Schemes was available to carry out bigger and better projects, but so far only three applications for loans were approved. Those whose loans were approved were guided by the Agricultural Extension Workers.

The destructions of padi by buffaloes in the *kampongs* after planting was reduced. Loans for barbed wire were given to owners of buffaloes at 50 per cent of the cost.

Agricultural Show, Brunei:

The 10th Agricultural Show was held at the Sultan Mohamad Jamalul-Alam Malay School, Brunei, on 25th August. It was opened by the Yang Maha Mulia Raja Isteri of Brunei, and more than 1,000 persons attended the show. The purpose of the Agricultural Show is to encourage more home industries, raise more improved breeds of animals and grow more productive crops.

The owner of the finest piece of craftsmanship in silver was given a trophy, kindly presented by Mrs. Trumble.

Silverware, Brassware, Arts and Crafts were exhibited. Prizes for these were awarded by His Highness the Sultan, Sir Omar Ali Saifuddin, D.K., S.P.M.B., K.C.M.G., Sultan of Brunei.

Schools took part in the competition of handicrafts, needlework, fruits and vegetables produced by them and prizes were given to the best exhibitors.

Breeds of animals, varieties of padi, fishes, selected fruits and vegetables were displayed to the public by the Agricultural Department to make the show more attractive.

Visitors to the Stations:

All Agricultural Stations were always open to the public to see the different projects carried on and to learn the new trends in farming. The students of Sultan Mohamad Jamalul-Alam Malay School made educational tours to the Kilanas Agriculture Station and Animal Breeding Farm, Jerudong. They were given lectures on the forage crops, and care and management of animals. There were more than two thousand visitors to the stations during the year. Notable visitors to the stations were—

The High Commissioner, Brunei.

Duli Pengiran Bendahara, Brunei.

Duli Pengiran Pemancha, Brunei.

Mr. J. Cook, Director of Agriculture, Sarawak.

Mr. F. J. Harper, Deputy Director of Agriculture, Sarawak.

Pengiran Abu Bakar, D.O. Brunei.

Mr. J. O. Gilbert, The Hon'ble British Resident, Brunei.

Pengiran Abd. Rahman, A.D.O., Kuala Belait.

Mr. Merry, Veterinary Officer, Sarawak.

Mr. E. R. Bevington, Commissioner for Development, Brunei.

Inche Marsal bin Maun, Superintendent, Malay Education Department, Brunei.

Administration:

Inche Hamidoon bin Awang Damit officiated as State Agricultural Officer throughout the year.

Mr. W. G. Agne, Agriculture Assistant, Brunei, from the Philippines, joined the Department on 3rd October 1956, after his contract expired with the North Borneo Government.

The three students, who went for a year's course in the College of Agriculture, Serdang, had finished on 23rd May, 1956. They were given two and a half months educational trip to the Rubber Research Institute, Sungei Buloh, Selangor, Malaya, before returning to Brunei. The present strength of the Agriculture Department is as follows:

1	State Agricultural Officer
1	Assistant Veterinary Officer
1	Agricultural Assistant, Grade I
3	Agricultural Assistants (one on scholarship)
12	Agricultural Field Officers
14	Agricultural Field Inspectors
4	Probationers
1	Special Grade Mechanic
4	Drivers
2	Clerks "B"
1	Clerk "A"
1	Peon

TABLE I

THE ACREAGE YIELD IN GANTANGS OF WET AND DRY PADI
IN THE STATE OF BRUNEI 1955-1956

District	WET		DRY		TOTAL	
	Acres	Gantangs	Acres	Gantangs	Acres	Gantangs
Brunei and Muara	1,940	543,480	744	148,800	2,684	692,280
Tutong	988	114,960	827	164,960	1,815	279,920
Kuala Belait	481	113,470	397	67,805	878	181,275
Temburong	256	25,205	547	54,975	803	80,180
Total	3,665	797,115	2,515	436,540	6,180	1,233,655

TABLE II

THE FOLLOWING TABLE SHOWS THE ACREAGE YIELD IN GANTANGS
OF PADI FOR SEASON 1955/56 AS COMPARED WITH THE
SEASON 1954/55

Season	Wet Padi Acreage	Approx. yield in Gantangs	Dry Padi Acreage	Approx. yield in Gantangs	Grand Acreage	Total Estimated yield in Gantangs
1954—1955	4,578	1,805,080	2,211	346,011	6,789	2,151,091
1955—1956	3,665	797,115	2,515	436,540	6,180	1,233,655
Increase or Decrease	—913	—1,007,965	+304	+90,529	—609	—917,436

(d) FORESTRY

(Figures for 1955 are given in brackets after figures for 1956)

INTRODUCTION

Seventy-five per cent of the land of Brunei is still covered in primary forest, and forty-two per cent is under reservation. There is therefore an adequate forest estate now and sufficient for the future. The inventory of forest resources, completed in 1953, gave the following areas:—

	Total area of State	Forest Reserves	Stateland Forests	Secondary Forests	Agricultural & Residential areas
Square Miles	2,226	938	740	456	92
Percentage:		42%	33%	21%	1%

The forest reserves and to a lesser extent the stateland forests contain one of the State's greatest assets, and, as the State's revenues from the oil industry are more than sufficient for current expenditure, the forest policy is to conserve and develop the forests for the future. The Government of Brunei formulated and published its forests policy in 1951 in the following terms:—

1. To protect by reservation and to develop forests where their retention is essential for the conservation of soil and water resources necessary for agriculture, and to ensure that every district is, as far as possible, permanently self-supporting in respect of timber and other forest produce.

2. To develop the forests to provide forest produce for domestic use, for agricultural and industrial development.

3. To manage the forests to obtain the best financial return and the re-investment of an adequate percentage of this return in works of development in so far as such management is consistent with the primary aims of reservation.

4. To recruit the forest field staff from the people of the State and train them in the proper management of the forests.

5. To educate the people of the State to a proper appreciation of the importance of forests in the economy of the country, with particular emphasis on the destructive consequences of shifting cultivation.

The forests of Brunei are entirely evergreen, generally described as tropical rain forest. But within this broad classification, the forest types are remarkably diverse, dependent on the soil conditions. At the mouths of all the rivers, and especially in Brunei Bay, occur the mangrove forests; behind which, beyond tidal inundation, there are extensive areas of fresh-water swamp forest. This forest type is particularly abundant in the Belait River extending far to the Ulu behind the riparian fringe, and is largely dominated by *Seringawan* (*Shorea albida*). Certain poor podzolised soils have a characteristic vegetation which is known locally as *Kerangas*. A simple classification of the forest types is as follows:

<i>Type</i>	<i>Areas in Square Miles</i>
Littoral Forests	
Mangrove forests	43
Casuarina belts	Fringe along the coast
Other coastal forests	5
Inland Forests	
Peatswamp Forests	
(i) with <i>Seringawan</i> (<i>Shorea albida</i>)	208
(ii) without <i>Seringawan</i> (<i>Shorea albida</i>)	172
Kerangas forests	14
Dipterocarp forests	1,216
Montane forests	20
	<hr/>
	TOTAL 1,678 square miles
	<hr/>

The Dipterocarp forests compose seventy-two percent of the forests, but much of these is situated in the headwaters of the Belait, Tutong and Temburong rivers and is at present inaccessible.

1. CONSTITUTION OF FOREST RESERVES

The programme for the constitution of forest reserves was virtually completed by 1955, and 938 square miles were under reservation.

The small Berakas Forests Reserve situated near the coast in the Brunei District was ready for final reconstitution at the end of the year. The location of the reserve has been altered owing to quarrying by the P.W.D. in the area.

2. MANAGEMENT OF THE FORESTS

1956 was the second year in which the management of the forests of Brunei came under the Forestry Development Plan, 1955—64. This plan, which was approved in 1955, includes a description of the forests, and a detailed statement of the Government's policy for both forest reserves and Stateland forests. The plan calls for management of the reserves on a basis of sustained yield by working circles.

The first working plan, that for the Andulau Forest Reserve in the Belait and Tutong Districts, was prepared during the year. The plan covers 30,940 acres, which includes 19,312 acres of hill forest, 10,453 acres of low lying or swamp forest and 1,175 acres of secondary forest. The hill forest, which is the only forest type considered to be exploitable, is of excellent quality. A complete enumeration of the dipterocarps in compartment 6 (235 acres) gave a total representation of 7.29 trees, 20 ins. diameter and over, per acre, including 3.5 trees per acre of the more valuable heavy and medium hardwoods. The plan prescribes a 275 acre annual coupe on a 70 year rotation, and an annual yield on 7,331 tons is estimated. Provision is made for intensive silvicultural operations following exploitation, and for a limited research programme.

3. SILVICULTURE

Following exploitation in the Anduki Forest Reserve silvicultural treatment, consisting of the poison girdling with sodium arsenite of all unwanted species, was continued during the year.

Compartments 16, 18 and 19 were completed. Only two compartments now remain to be treated after which the reserve will require to be closed for a long period.

4. COMMUNICATIONS

Both the Belait and Tutong rivers are very badly obstructed by old stumps, logs and driftwood and by the silt and other material cemented round these. In 1955 the Government decided to clear the Belait river, which will enable forest licensees to take heavy equipment up to the *Ulu* for the systematic working of the forests. In April, Captain W. A. Doust, C.B.E., of the Federal Dredging and Reclamation Company of Singapore, arrived with an impressive array of salvage and marine surveying equipment, and started clearing a channel from *Bukit Sawat*. Successful progress was made and by the end of the year 11 miles had been cleared and surveyed. Work has delayed during November and December, owing to almost continuous high water, but with the aid of local Ibans, Captain Doust was able to push ahead with the clearance and consolidation of the banks of the river. The work was supervised by the State Marine Officer.

5. PROTECTION ON FORESTS

Maintenance of Boundaries:

Ladau Hills Forest Reserve. Twelve and a half miles of boundary rentis between *Sungai Kiulu* and *Sungai Belabau* were cleaned.

Andulau Forest Reserve. Two and a half miles of rentis near *Bukit Kukub* were cleaned and a further two miles between the *Andulau Sawmill* and *Sungai Penyuroh*.

Forest Offences:

Two major forest offences were reported during the year. In the *Anduki Forest Reserve* a forest offence in which the licensee felled outside his licence area was compounded for 100 dollars; in addition to which the licensee was required to pay \$690.00 in compensation.

The licensee working in the Andulau Forest Reserve was penalised and fined on three occasions for breaches of the conditions of his permit and for forest offences. Fines and compensation amounted to \$630.00.

Forest Damage:

During a charter flight in January, the State Forest Officer examined extensive areas of *Seringawan* (*Shorea albida*) forest near the Badas line which has been killed out. It is suspected that the cause is a defoliating insect known locally as *ulat bulu*. A further investigation in October by helicopter, by kind permission of the British Malayan Petroleum Company, showed that at least 1,000 acres of this forest has been killed. This damage has all occurred within the last ten years.

Severe damage to the regeneration of *Kapor paya* in the Anduki Forest Reserve was recorded during an enumeration in May. It appears probable that the damage is caused by a shoot boring insect. The seedlings and saplings are rarely killed but there is severe retardation during the early years of growth.

6. FOREST INDUSTRIES

The three main forest industries are—

- (i) the timber industry;
- (ii) the firewood and charcoal industry;
- (iii) the *jelutong* and minor forest produce industry.

(i) *Timber Industry*

Despite the extensive forests in Brunei, the State is not self-supporting in timber. Since the war, the rehabilitation and development of the oil industry has more than absorbed the total local timber production; and more recently, as the State's Development Plan has got under way, there has been an increasing demand for timber for the numerous buildings, especially schools, that are being constructed by the P.W.D. The industry which is largely centred on Kuala Belait and Tutong, concentrates on supplying this internal demand.

Sawmills:

There are 22 (23) sawmills operating in the State, but many of these are one bench mills, powered by a petrol or light diesel engine. Most of these mills are working out timber on Stateland and move periodically, as the forest in the locality is exhausted. With the development of the more economic larger mills, many of the smaller mills are finding it hard to compete, except where they are cutting a valuable species for which there is a constant demand. Five mills in the Belait District are now working in *Seringawan* forest which produces the light hardwood *alau bunga*. The furniture industry in Kuala Belait and Brunei uses this timber almost exclusively.

The two large mills in Kuala Belait which were constructed in 1955 still await the supply of electrical power. It is hoped that this will be provided by April, 1957.

The following is a summary of all sawmills operating in the State during 1956:—

<i>District</i>	<i>Number of Sawbenches</i>					<i>Total</i>
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	
Belait	5	4	2	1	—	12
Tutong	2	4	—	2	—	8
Brunei	—	—	—	—	—	—
Temburong	1	1	—	—	—	2
TOTAL	<u>8</u>	<u>9</u>	<u>2</u>	<u>3</u>	<u>—</u>	<u>22</u>

Outturn of timber:

Full details of the outturn of timber under licence and permit is included in Appendix "F". The following is a summary for comparison with previous years:

		<i>Outturn in Cubic Feet.</i>	
		<i>1956</i>	<i>1955</i>
Forest reserves	(round logs)	256,938	(147,102)
Forest reserves	(sawn timber)	82,101	(128,562)
Other forests	(round logs)	531,254	(424,110)
Other forests	(sawn timber)	103,646	(113,851)

There was a 9.9 percent overall increase in outturn during 1956: 4.4 percent from forest reserves and 13.4 percent from other forests. The increase was greatest in the *Ulu Belait* from which the Yiek Hin and Shing Yip Sawmills are extracting timber. Two spells of high water in November and December brought down large quantities of logs and at the end of the year these two mills had 1,800 logs in stock.

Timber Prices:

Timber prices have remained relatively steady during the past three years, being largely controlled by the oilfield. The prices paid by the British Malayan Petroleum Company during 1956 are given below:

	\$ per cu. ton
Selangan batu	310 — 330
Kapor bukit, 24' and over	198
Kapor bukit, 20' and over	188
Kapor paya	130 — 140
Keruing, 24' and over	198
Keruing, 20' and over	188
Keruing, 16' and under	178
Sermayor	178
Meranti	124
Seringawan	124
Sempilor	110

(ii) *Firewood & Charcoal*

The production of mangrove firewood was 285,509 (396,120) cubic feet. The George Ah Foott Firewood Co. Ltd. exported only 3,277 (9,693) shipping tons to Hong Kong. The difficulty in obtaining labour was one factor in the sharp decline, but fluctuations in the market in Hong Kong and high freight rates also contributed. In the second half of the year, the high prices paid in Hong Kong for scrap iron inflated the freight rates.

The quantity of mangrove wood used in the production of charcoal has remained relatively slack during the past three years. Seventeen kilns used 32,469 (38,844) cubic feet during the year, yielding an estimated outturn of 3,600 *pikuls*.

(iii) *Jelutong and Minor Forest Produce.*

The production of *getah jelutong* totalled 2,964 (3,690) *pikuls*, a decrease of 20 percent on 1955. The *jelutong* is tapped under licence and the licensee reported difficulties in obtaining labour for tapping, which is almost exclusively done by Ibans.

The outturn of *jelutong*, *nibong* and rattans under licence is shown in Appendix "G". Under the Forest Rules (1955), which came into force on 1st January, 1956, royalty on all other minor forest produce is waived. It was found that the royalty was almost negligible, but the collection of it entailed a good deal of office work.

7. IMPORTS AND EXPORTS

Imports:

The Customs Department, Brunei, annual statistics for 1956 shows the following sawn timber imported into the State (vide Appendix "A"):

<i>Quantity</i> <i>in tons of 50 cu. ft.</i>	<i>Value</i> \$
15,104 (16,818)	1,350,981 (1,034,347)

There has therefore been a decrease of approximately a tenth in the amount of timber imported. Production of lumber within the State during the same period is estimated at 11,600 (11,360) tons in terms of sawn timber, assuming a 50 percent recovery on conversion of round timber. The State is therefore still importing half its requirements of timber, which is almost entirely coming from Sarawak. During 1956 the State also imported 1,219 tons of round timber valued at \$19,096 (\$18,465). This is almost entirely composed of mangrove poles for piling.

Exports:

The export of timber is prohibited except with the permission of the State Forest Officer, in order that the local demand may be satisfied. Small quantities of *Keruntum* (*Combretocarpus Rotundatus*) were exported to Labuan to be used in the construction of a wharf there.

8. RESEARCH

Mr. T. W. G. Dames, an F.A.O. Soils Specialist, who has been seconded to the Forest Department, Sarawak, for twelve months to study the *Kerangas* soils of Sarawak, visited Brunei for a month in the middle of the year. He examined soils in the Berakas, Anduki, Andulau, Labi Hills and Badas forest reserves, and also the very infertile sands near the mouth of the Tutong river.

Subsequent to Mr. Dames' visit, a number of half acre sample plots were laid out and enumerated in the Berakas and Badas Forest reserves, and the vegetation examined on the Tutong sands in an attempt to correlate the vegetational types with the variations in the soil.

Mr. P. Shaw-Ashton, a 1956 botany graduate of Cambridge University, was selected to fill the newly created post of forest botanist in the State for a period of four years. Mr. Shaw-Ashton is expected to arrive early in 1957 and will be examining in particular the principal timber producing botanical family, the *Dipterocarpaceae*.

One hundred and seventy timber specimens of the family *Dipterocarpaceae* which had been collected during the past four years were cut, sorted and catalogued. A card index was prepared of all the *Dipterocarps* known to occur in Brunei, and the specimens held in the Forest Office recorded.

9. EDUCATION

Forest Guard, Arbi bin Ahmat, was the student selected to attend the one year's vernacular course at the Forest School, Kepong, Malaya. He was placed 19th out of a total of 61 students, and obtained credits in botany and timber identification.

10. FINANCIAL RESULTS

Statements of the revenue and expenditure for the whole State are included in appendices "H" and "I", and are summarised below:—

<i>Year</i>	<i>Revenue</i>	<i>Expenditure</i>		<i>Total</i>	<i>Surplus</i>
		<i>Personal</i>	<i>Other</i>		
	\$	<i>Emoluments</i>	<i>Charges</i>	\$	\$
1956	137,174	97,905	20,732	118,637	18,537
1955	120,492	70,096	32,635	104,731	15,710
1954	128,633	61,498	38,352	99,850	28,783

Details of revenue from different classes of forest produce are given below:—

<i>Kind of Produce</i>	<i>Revenue</i>		<i>Increase</i>	<i>Decrease</i>
	<i>1956</i>	<i>1955</i>		
	\$	\$	\$	\$
Timber and poles	88,449	65,639	19,810	—
Firewood and charcoal	8,005	13,263	—	5,258
Jelutong	38,301	38,818	—	517
Minor forest produce	—	2,542	—	2,542
Other sources	999	179	820	—
Compensation and fines	1,420	—	1,420	—
TOTAL	137,174	120,441	16,733	

The increase in revenue was primarily derived from the increased outturn of timber in the Belait and Tutong Districts, and to a lesser extent to minor increases in royalty paid as a result of the revision of the royalty rates and the timber toll.

There was a surplus of revenue over expenditure of \$18,537.

11. ADMINISTRATION AND GENERAL

Mr. B. E. Smythies relinquished the post of State Forest Officer in January, after holding it for over three years. He was succeeded in the post, in addition to that of Section Forest Officer, Limbang and Lawas, by Mr. J. A. R. Anderson.

The State Forest Officer attended the annual conference of the Sarawak Forest Department in Kuching in February. He also represented Brunei at the second British Borneo Inter-Territorial Conference held in Kuching in July.

Legislation:

The revised Forest Rules (1955) came into force on 1st January. Details of the principal revisions therein were included in the 1955 Annual Report.

(e) FISHERIES

The total landings of fish and prawns during 1956 are given in the following tables with previous years' figures for comparison, and are indicated in the local weights of 'Pikuls and Katties' i.e.

1 Pikul (100 katties) is equal to $133\frac{1}{3}$ lbs.

	1953	1954	1955	1956
Fish (All grades)	2,264.45	3,429.99	9,115.38	19,995.00
Prawns	589.38	921.45	1,008.80	2,140.00

With the exception of river fisheries, from which returns are negligible and intended for consumption by the operator and his family only, mechanisation of all fishing vessels was completed in 1956, and has resulted in a considerable increase in landings of marketable sea food. The huge increase in 1956 landings on previous years however, is not solely attributable to the mechanisation of Brunei fishing vessels, but is largely due to a tightening of control over the homeward bound fisherman returning from the fishing grounds with his day's catch, previously waylaid in the rivers by native craft from neighbouring ports in the Brunei Bay area and enticed to sell his fish to them to probably slightly higher rates than the controlled prices. The fisherman, having disposed of most of his catch could proceed to his home with the minimum delay usually experienced in landing his fish at the Town market. Strict enforcement of the rule that fish and prawns may only be disposed of in the licensed market and to certain licensed merchants, and supported by surprise river patrols has produced most satisfactory results. 1956 has also, in spite of inclement and unseasonable weather, been an unusually good year for the fishermen, each season producing an abundant supply.

The principal fishing areas of the State of Brunei are mostly coastal in the vicinity of the river mouths and estuaries or near coral beds or rocky patches. Confined to these areas in previous years, the introduction of powered craft has opened up new

grounds off the coast line which the Brunei fisherman, no longer dependent upon 'paddle power', has not been slow to exploit and use. At the moment most of these crafts are driven by outboard engines which are not very economical, but it is hoped that soon fishermen will learn to use the more economical but slower diesel engine.

All fisheries in the State are seasonal, and gears and methods vary accordingly. The following table shows the various gears licensed during the year.

<i>Gear</i>	<i>1953</i>	<i>1954</i>	<i>1955</i>	<i>1956</i>	<i>Explanation</i>
Pukat	24	17	21	18	Small drift net.
Rantau	14	3	19	19	Large drift net.
Kilong	107	31	27	26	Deep water fishing trap.
Peguyot	3	4	19	8	Drag net.
Kabat	24	25	30	27	Small fish trap.
Tambak	10	20	24	20	Set net.
Bubu	55	265	757	1820	Similar to lobster pot.
Lintau	58	118	102	132	Shoal water fish trap.
Slanbau	3	18	16	15	Watched set net.
Penakat	40	32	—	—	Line fishing.
Rambat	7	8	10	8	Cast net
Gurit	10	1	1	1	Long line.
Anchau	—	3	4	4	Similar to drag net.
Fishing Rod	—	—	—	4	
Peguyot	—	—	—	3	Type of drift net.

A Port by Port break-down of gears and licences issued during the year follows:—

	<i>Gear Licences</i>				<i>Fishing Boat Licenes</i>			
	<i>1953</i>	<i>1954</i>	<i>1955</i>	<i>1956</i>	<i>1953</i>	<i>1954</i>	<i>1955</i>	<i>1956</i>
Brunei Town	93	83	76	491	92	59	68	78
Baru Baru	75	20	244 +	622*	44	20	25	11
Fishing Rod	69	101	509 +	680*	22	—	13	31
Tutong	19	160	678 +	20	19	21	31	18
Kuala Labu	69	80	92	105	76	71	96	79
Muara	71	63	120	624*	32	39	39	44

+ Includes "Bubu's"—popular for use on open sea fishing grounds.

*Includes "Tugu sets"—long set trawl type nets for prawn fishing.

River Fisheries:

There are no river fisheries in Brunei organised on a commercial basis. Cast nets (*Rambat*) and fish traps (*Kilong*) are the most popular methods, with occasional use of the *Slanbau* (watched set net), *Penakat* (line fishing) and *Bubu* (type of crab pot).

These methods, employed mostly by residents in the *Kampong Ayer* (Water Village) produced very little returns and are used mainly as a hobby or spare time employment to supplement the family table.

Prawn Fishing Industry (Tugu):

The 'Tugu' Industry, with its Headquarters on the two small Islands of Baru Baru and Berbunot continues to fish the Southern parts of Brunei Bay for prawns.

'Tugu' nets, of conical shape, secured to wooden stakes and set in long rows, across the flow of the tide, may be seen extending from the Southern shores practically right across the Bay, and constant watch has to be maintained on the 'Tugu' fishermen to prevent obstruction by new 'sets' of the Brunei, Temburong, Limbang, Pandaruan navigable channels.

Due to an increasing demand and ready market for fresh prawns, the export of prawn dust, produced by sun drying and then powdering selected prawns at the Island Headquarters, has declined considerably during the year.

The unmarketable prawn 'fry', together with small fish, '*Ikan Bilis*', also caught in the 'Tugu', are used as pig food on the pig farm at Berbunot Island.

Of the total lands of sea food in Brunei Town in 1956, 691.53 *pikuls* of fish and 260.80 *pikuls* of prawns were sent by road on movement permits to Seria and Kuala Belait Oilfields areas.

The fishing industry in Brunei has on the whole made satisfactory progress in 1956, but there yet remains room for much improvement. Powered crafts have shown the way in which the fisherman may improve his conditions and lot in life, and it is

hoped that this is but the first step on the road to future complete modernization of not only vessels but also the shore side handling and storing facilities. Worthy of note and a direct result of the increased supplies, is the interest now being shown in 'iced' fish. Formerly, any surplus of fish and prawns remaining unsold in the market after being displayed for sale all day, would be converted into poultry and animal food, as very few people would purchase sea food which had been iced down overnight. Now, however, with an adequate supply of 14 lb ice blocks available and an almost daily surplus of first quality fish, little difficulty is experienced by the merchants in disposing of the previous day's balance. Fish is now available practically all day, whereas previously it was necessary to await the return of the fishing fleets and scramble for a share of their frequently inadequate catches.

Price controls exercised over sea produce have continued to ensure a fair distribution of this food, and to discourage 'black marketing' which, before the extension of controls to include the Southern areas of Seria and Kuala Belait, was a flourishing business and resulted in a permanent shortage of fish and prawns in Brunei Town. Diverted by various routes out of the Town area, large quantities of sea food were on sale at inflated prices in one half of the State, while in the half which produced it, there was insufficient to go round. The extension and strict enforcement of price controls over the whole State produced a satisfactory answer to the problem.

A visit was made in mid-year by M.F.V. "Mannihine", the Fisheries Research vessel operating out of Singapore and the Federation of Malaya.

(f) MINING

Production of light and heavy crude oil from Seria Field (including some 600,000 barrels of gasoline from the Gas Plant) by the British Malayan Petroleum Company Limited amounted in 1956 to approximately 42 million barrels; this is about 3 million barrels more than in 1955.

A total of 230,900 feet of hole was drilled in Seria Field (compared with 209,900 feet in 1955) and 36 new wells were completed as oil producers. Drilling on the third inshore platform in Seria was still in progress at the end of the year. On the

fourth platform (connected to land by a board walk) four wells were drilled to the Shallow sands, previously encountered in land wells, and were completed as producers. A fifth inshore platform was launched during the year and sited approximately one mile seaward of the third platform.

A well at Tali, to the east of Seria, was deviated under the sea. The well was producing oil on test at the end of the year.

Drilling continued at Jerudong and several outstep wells were drilled as a follow-up to Jerudong 2 which discovered oil in 1955. Altogether some 28,900 feet were drilled, but very little additional oil was encountered. It would appear that the reservoir discovered in Jerudong 2 is of very limited extent.

Production from Jerudong No. 2 continued and approximately 82,000 barrels of oil has been produced. The oil is moved by pipeline from Jerudong to a loading point on Sungei Damuan about 5 miles from Brunei Town and is there loaded into oil barges.

A drilling platform was built at Ampa Patches about 21 miles off the Brunei coast on a prospect defined by the offshore seismic survey of 1954, and the first highseas exploration well spudded on the 13th of November, about $6\frac{1}{2}$ months after the launching of the first half of the structure. All personnel required for the operation live on the platform in quarters and are transported to shore by helicopters at regular intervals for rest periods. At the end of the year the well was drilling, and had reached a depth of 1,600 feet.

Geological, seismic and gravity surveys were carried out during the year both at sea and on land. In addition, an intensive core-drilling campaign took place in the Jerudong area, drilling a total of 29,500 feet.

At Kuala Belait marine construction yard, assembly continued of the jackets for highseas drilling platforms and for the fifth inshore platform for Seria.

Other engineering work included the construction of a further 11,000 feet of dyke for protection against coast erosion and of additional tankage in the Seria Main Storage; work was commenced on the new light oil gaslift system and preliminary steps were taken to expand the power plant.

At the end of 1956 The British Malayan Petroleum Company Limited had on its books in Seria, Belait and Brunei outstations the following employees:—

Senior Staff (all races)	396
Regional Staff (all races)	1,015
Labour (all races) excluding casual labour	4,150

CHAPTER VII

SOCIAL SERVICES

(a) EDUCATION

THE year 1956 was the second full year in the Development Plan for Education in Brunei. The more important developments during the year have been—

(a) that secondary education in the State has now advanced beyond Junior Secondary level and pupils at the Sultan Omar Ali Saifuddin College completed during 1956 their first year of study leading to the Overseas Cambridge Certificate, and

(b) the opening of a Teacher Training Centre in Brunei Town.

THE EDUCATION DEPARTMENT DURING 1956

In 1956 there was another substantial increase in school enrolment for all types of schools. The total enrolment was 10,151, showing an increase of 1,591 on the previous year's figures.

Once again an encouraging feature was the gradual rise in the number of girls attending school, the increase over 1955 being 602. Although these figures are heartening the general ratio of boys to girls in schools still leaves much to be desired. Figures giving the number of schools and enrolments are shown in the table headed "Number of Schools and Pupils".

Although in the past some Malay parents have shown a reluctance to send their daughters to school there are increasing signs that this reluctance is gradually being overcome. It is also to be noted that many more girls are being sent to school at an earlier age, especially in the urban areas. It is hoped that as more trained women teachers graduate from Kent College, British North Borneo, and Malacca Women's Training College and enter the schools the number of girls *entering* the schools will increase even more.

The number of children receiving secondary education increased from 332 in 1955 to 607 in 1956.

Government Schools—Malay Primary Schools:

Two new Malay Primary Schools were opened during the year, one situated at Rampayoh and the other at Labu Estate, both of which were temporary buildings constructed from *atap*. The usual grant of \$400 was given to each community to help the *kampong* people buy the materials—labour being supplied by the villagers. Both of these schools are flourishing.

The following permanent school buildings were completed during the year, all of which were scheduled to be built under the Development Plan.

	<i>Places</i>
Seria	300
Bukit Bendera (Muda Hashim)	200
Kuala Belait (Ahmad Tajuddin)	300
Batu Marang	100
Dato Gandi	140
Sungei Liang	100
Kupang	100
Layong	70
Rambai	70
Puni	100
Bokok	140
Penanjong	70

The Department was honoured by the presence of His Highness the Sultan and the Chief Ministers at the opening of these schools.

All of these schools have permanent quarters for teachers.

Every effort has been made during the year to improve school playing fields, school approaches, landing stages, etc., but a large amount of this work has still to be done, especially regarding the draining and levelling of playing fields. Association football and similar games which require a large playing area are becoming increasingly popular in the Malay Primary Schools which increases in turn the demand for a suitable field, but where the school areas are on a river bank or in swampy land the provision of a dry, firm field is difficult.

Girls' Vernacular School,
Brunei.



Parents' Days are still a very popular and very valuable feature of the Malay Primary Schools; parents, teachers, supervisors and children all co-operating to make these occasions successful. The Government makes grants to each school for prizes, etc., giving a similar amount to that collected by parents and friends of the school.

There is still a great demand from parents for their children to be taught English, a demand which is difficult to fulfil as there is a lack of teachers able to teach English in Malay Primary Schools. The arrival in August of four Kirkby Trained Teachers helped towards solving the problem of the teaching of English in the large urban schools, but it will take several years before the teaching of English as a second language can be really effective in the primary Malay Schools.

The number of children seeking admission to the Preparatory Department of the Government English schools continues to be very high and the disappointment shown both by parents and children when a candidate fails to attain entrance is indicative of the demand for secondary education in the State.

1956 saw the completion of a Malay Primary School building for girls in Brunei and the pupils will enter this school in January, 1957. This is the first girls' school to be completed in the State and it is the policy of the Government to segregate the sexes wherever it is possible and practicable to do so, if not in separate buildings then in separate classrooms.

Teacher Training (Malay):

The Brunei Teachers Training Centre opened in January, 1956, in the *kajang* classrooms. The 21 male students were First and Second year students from Batu Lintang, Kuching, who became Second and Third year students when they entered the Brunei Centre. The Centre opened with a staff consisting of a part-time Acting Principal, a Senior Tutor (seconded from Malaya) and an experienced Malay Teacher. In August, the Principal of the Centre and an expatriate officer for the teaching of English (part-time), arrived. During September, the Centre moved to its permanent building which is a wing of the Sultan Omar Ali Saifuddin College.

Brunei Town. During 1956 all the students were day students but the Centre will be entirely residential in January, 1957. In December, 1956, seven students, the whole of the third year, graduated from the Centre and were posted to schools.

Brunei Government continued to send six young women for teacher training to Kent College, British North Borneo, and in December, 1956, the first six, sent in 1954, returned to Brunei as trained teachers. A further intake has been recruited for 1957, so that during that period there will be a total of twelve undergoing training.

Probationer teachers are still sent overseas for training and the position during 1956 was—

1. Sultan Idris Training College, Malaya	2
2. Malay Women's Training College, Malacca	4
3. Kent College, British North Borneo	12

Chinese Schools:

The outstanding feature of Chinese education in the State of Brunei during 1956 was the successful implementation of the revised policy towards Chinese Schools inaugurated at the beginning of the year. Under the revised policy Chinese Schools receive 50 per cent of their recurrent costs from the Government and substantial grants towards new school buildings. The year 1956 was regarded as an experiment but the success of the scheme can be judged by the fact that all the Chinese Schools of the State wish to continue with the revised policy during 1957. There is no doubt that the rise in salaries received by the Chinese teachers, an important factor in the scheme, has given to all Chinese teachers a better feeling of security and increased status in the Chinese Community. Now that a Chinese Teachers' Training College has been opened in Sibul, it is hoped to send a small number of students from Brunei for teacher training during 1957.

During 1956, a sum of \$412,000 was approved as building grants to Chinese School Committees. A major building project, Chung Hwa School, Kuala Belait, was completed during the year and opened by His Highness the Sultan on 28th July, 1956. The new school building at Tutong was also completed.

At the end of the school year 34 students from Chung Ching Middle School and Chung Hwa Middle School were successful in passing the Junior Middle Section Common Examination. The standard and regulations for this examination followed those of the Education Department, Sarawak. The same syllabus was followed and the same recommended text books used. The Examination Committee consisted of the Supervisors of both schools, the Principals of Schools and the Inspector of Chinese Schools.

Secondary Education (English):

A large number of the students who were successful in passing the Sarawak Junior Certificate in November, 1955, proceed to Form 4 to follow a two-year course leading to the Overseas Senior Cambridge Certificate. This is the first time that a Form 4 has been established in the State. It is made up of pupils from both the Sultan Omar Ali Saifuddin College and Government English School, Seria.

Pupils from the junior secondary departments of the Government Secondary Schools and from St. Michael's School, Seria, entered for the Sarawak Junior Certificate with the following results:—

<i>School</i>	<i>Entrants</i>	<i>Awarded Certificate</i>	<i>Approved Form III</i>
St. Michael's R. C. School, Seria	17	10	2
S.O.A.S. College.	17	8	6
G.E.S. Seria	10	6	2
	44	24	10

The College building in Brunei Town has now entered on phase two. During 1956 the Hostel was completed and a large number of out-station students became residential during May. It is expected that the Science block will be completed during 1957.

Mission Schools:

Two new S.P.G. Mission Schools opened during the year, one at Seria and the other at Kuala Belait. Both schools have primary classes only.

The three established Mission Schools all had increased enrolments. St. Michael's R.C. School, Seria, successfully moved into its large new building at the end of 1955, and 1956 was a year of progress and expansion. Although grants to Mission Schools have been doubled one of the chief problems facing all of these schools is the recruitment of trained teachers.

Trades School:

The following table gives the number of youths in training at the British Malayan Petroleum Company's Trades School, Seria, during 1955:—

<i>Race</i>	<i>1st Year</i>	<i>2nd Year</i>	<i>3rd Year</i>	<i>Total</i>
*Malay	29	7	31	67
Chinese	32	23	23	78
Indian	1	2	—	3
Dusun	—	—	1	1
Melanau	1	1	3	5
Dyak	3	2	3	8
Eurasian	1	1	—	2
Burmese	—	1	—	1
Philippino	1	—	—	1
Total:	68	37	61	166

* includes Government Students.

Under the Development Plan Brunei Government awards scholarships to Brunei boys for vocational training at the Trades School. The medium of instruction for these students is Malay and many of them learn English at Evening Classes. During 1956 there was a total of 47 Government sponsored boys at the Trades School. 1956 was the last year of this particular scheme and if another scheme is arranged it is hoped that the medium of instruction will be English. Some of the students found the change from an urban environment to highly industrialised surroundings very difficult and left to do other work, but the majority are progressing satisfactorily.

Adult Education:

The two main centres for Adult Education are at Brunei Town (Sultan Omar Ali Saifuddin College) and Seria (Government English School). Subjects taught during the year included English, Arithmetic, Shorthand, Typewriting and Malay. The greatest demand is still for instruction in English. Enrolment for these classes increased during 1956 and there were over 400 students enrolled.

One hundred and thirty-seven students entered for Royal Society of Arts examinations during November, the results of which are awaited. The most popular subjects for these examinations are still Arithmetic and English for foreigners. It is encouraging to note that some students who were successful in Grade I R.S.A. Examinations in 1955 took the Grade II examinations in 1956.

Six students were successful in obtaining certificates from the City and Guilds of London Institute. The candidates for this examination were mostly employees of British Malayan Petroleum Company, Limited, and subjects included Telecommunications and Radio.

Adult Literacy Campaign:

A three month pilot scheme was commenced in September which was under the supervision of the Senior Tutor of the Brunei Teachers' Training Centre. At first the response was slight but after further publicity a class was started in Kuala Belait and another in Brunei Town. Numbers were small but after discussion with heads of *kampongs*, who did all they could to help, enrolments increased slightly. The pilot scheme showed that there was a definite demand for adult literacy classes in some rural areas; that for any campaign to be successful a full time officer would be required; and that in the urban areas adult literacy classes would need building up slowly. The classes started under this scheme will be continued under Adult Education.

School Feeding:

The School Feeding Scheme was taken over by the Education Department from the Medical Department in January, 1956, and the outstanding characteristic of the period under review was the successful decentralisation of the scheme. This success was due

entirely to the initiative displayed and the co-operation given by the Headmasters and the teachers in the schools, especially in the rural areas where facilities for school catering are not so good as those that exist in the urban centres and where supplies, especially of fresh meat and vegetables, are difficult to procure.

The responsibility of the Headmaster is now the central factor in the School Feeding Scheme and all Heads of Schools are responsible for the preparation and distribution of the meal or fortified drink. Cooks and contractors are now engaged by Heads of Schools on the advice of the School Advisory Committee on School Feeding.

Children in rural areas received a full meal each school day for which an allowance of 55 cents or 60 cents is paid, while those children in the urban areas receive a fortified drink for which an allowance of 20 cents is paid. The drink is generally of the beverage type—Milo, Ovaltine, etc., made with tinned milk and sugar added. The minimum standard laid down for a meal is:—

Rice	3 ozs.
Meat, fish or egg	3 ozs.
Vegetable	3 ozs.
Cooking oil	$\frac{1}{2}$ oz.
Salt and curry as required.	

During 1956 fifteen schools started the scheme and by the end of the year all schools in the State were included in the Scheme except the two unaided schools.

Vitamised Rice (Roche Mix) is sent to all schools to be added in small quantities to normal rice.

For 1956 a sum of \$787,000 was approved for the School Feeding Scheme. The State Medical Officer remained as Medical Adviser to the Scheme.

Medical Attention in Schools:

In the latter half of the year a mass X-Rays of all school teachers was carried out, and by the end of the year 95 per cent had been examined. One school teacher was found to be suffering

from tuberculosis and stopped work while two others have been required to report for further treatment. Government has agreed to pay full salary to a teacher who is found to be suffering from tuberculosis and who takes advantage of the free medical treatment provided. It is hoped that the mass X-Ray will become an annual examination for all who work in schools.

All cooks were medically examined before being allowed to work in the schools, and all pupils admitted to Government English Schools and the Brunei Teacher Training Centre were medically examined prior to admission.

The amount of dental work done in the Schools is shown in an appendix compiled by the Medical Department.

Publication:

During 1956 an "Annual Summary of Statistics" was published.

In Service Training:

Classes in Mathematics and English were organised during normal working hours for twelve Junior Government officers from Customs Department and Land and Survey Department. All students made good progress and the numbers receiving such training will be increased during 1957.

Scholarships:

Three Malay teachers were awarded scholarships to follow a year's training in the United Kingdom. Other scholarships included:

- 1 Law, United Kingdom.
- 4 Boys (Millfield School), United Kingdom.
- 1 Engineering, Australia
- 1 Course, leading to Engineering Training, Australia
- 3 Secondary Education, Singapore
- 1 Secondary Education, Malaya
- 1 Secondary Education, Sibu, Sarawak
- 3 Secondary Education, Kuching, Sarawak
- 3 Agriculture, Sadong, Sarawak
- 1 Agriculture, Australia
- 1 Public Administration, Australia
- 1 Electrical Engineering, Australia.

NUMBER OF SCHOOLS AND PUPILS

Schools	Primary		Total		Secondary		Total		Teacher Training		Total		Technical and Vocational	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
*Government Schools														
Vernacular and English	48	3392	1271	4663	2	210	73	283	1	21	—	—	—	—
Mission Schools	5	974	678	1652	1	88	49	137	—	—	—	—	—	—
Chinese Schools under Boards of Management	8	1649	1246	2895	2	116	71	187	—	—	—	—	—	—
Unaided Schools	1	63	84	147	—	—	—	—	—	—	1	166	—	166
TOTAL:	62	6078	3279	9357	5	414	193	607	1	21	21	1	166	166

*Includes Preparatory Departments of Government English Schools.

GRAND TOTAL = 10,151
(No. of Pupils)

ANALYSIS SCHOOL ENROLMENTS—1956—RACIAL ALL SCHOOLS

<i>Race</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Malay	3,212	1,162	4,374
Chinese	2,546	1,849	4,395
Indian	104	80	184
Eurasian	67	64	131
Kedayan	292	77	369
Dusun	250	102	352
Others	208	138	346
Total:	6,679	3,472	10,151

(b) PUBLIC HEALTH

MEDICAL AND HEALTH DEPARTMENT

General Review:

A great deal of useful work has been done by the rank and file of the Department, much of it under difficult conditions, and steady progress has been made in awakening in the population a genuine and intelligent interest in the appreciation of Western medicine. Progress has been made in spreading the facilities offered by the Maternal and Child Welfare services through the State, and considerable progress has been made in the training of nursing staff and midwives.

A more regular programme of visits by Hospital Assistants and Medical Officers to the rural areas, both coastal and upriver has been possible and has been rewarded by a better contact with the rural population.

Minor improvements to the State Hospital, including the near completion of the electrically equipped laundry, have been made and late in the year a major structural alteration to the District Hospital, Kuala Belait was commenced which will add fifty beds to the accommodation which it provides, together with a small but functional maternity department, a new operating theatre, and new X-ray, pathology and dental departments as well as

linking all the wards and departments by a raised covered way all on one level, and providing water-borne sanitation throughout the Hospital.

During the year the additions to the Nurses Hostel at the State Hospital were completed raising the accommodation from 24 to 60 nurses and providing excellent dining and sitting rooms. The barracks for the Hospital subordinate staff at the State Hospital were completed, providing 32 self-contained quarters, each with its own kitchen, bath-room and lavatory, the whole being provided with water-borne sanitation.

By the end of the year the framework of the building for the Sisters' flats at the State Hospital had been largely completed.

There has been less progress than had been hoped for with other Medical Development projects due to the need arising for a considerable modification of the Development Plan for the Medical Department. The modified plan was approved by the State Council in November and in the last few weeks of the year steps were taken to ensure that rapid progress would be possible early in 1957.

In spite of the satisfactory development of nurses and hospital assistant training there is and must be for many years a lack of trained local staff. Difficulty has been met in trying to fill vacancies on the establishment by recruitment from abroad which has hindered the progress of the Department.

Administration:

The former State Medical Officer having unfortunately retired due to ill health a new appointment was made and the present State Medical Officer assumed duty on 22nd May, 1956. An additional Medical Officer, and two Nursing Sisters were appointed during the year, and there has been some recruitment of Nursing staff.

It has been the aim of the Administration during 1956 to simplify administrative routine and to reduce it to a minimum with the express purpose of diverting the smallest possible number of professional officers from their professional duties to administrative duties.

The following legislation relating to the Medical and Health Department was enacted during 1956:—

- (i) Enactment No. 13 of 1956—Poison.
- (ii) Enactment No. 14 of 1956—Dangerous Drugs.
- (iii) Enactment No. 15 of 1956—Registration of Medical Practitioners and Dentists.

During 1956 the cost of maintaining the Medical Department was \$1,668,102 as against the estimated cost of \$2,302,786. The saving is partly due to the inability to recruit the staff which is needed. Revenue earned by the Department during the year was \$31,215 being largely derived from hospital charges and the sales of medicines.

There has been no outbreak of epidemic disease during the year 1956.

It is a pleasure to record the fact that the existing friendly co-operation with the Medical staff of the British Malayan Petroleum Company Limited, Seria, was maintained during the year. The Government Medical Department is indebted to the Company's Medical Staff for professional assistance, both in consultation and in the active treatment of patients on numerous occasions during the year, and the Chief Medical Officer of the Company and the State Medical Officer had frequent meetings during the year to discuss matters of routine relating to Kuala Belait-Seria areas, where the Company's and Government's responsibilities for health are closely interlocked, and to discuss the planning of the New Hospital which the Government is to build at Panaga, and which will in the first instance be run by the Company.

Among those who visited the Medical Department during 1956 was—

S. Polak Esq.	(UNICEF)	21.2.56
Dr. W. G. Evans	(D.M.S.)	16.3.56
Dr. W. G. Evans	(D.M.S.)	10.8.56
Dr. E. Y. Shu	(W.H.O.)	10.12.56
Professor Hill		
	(St. Andrews University)	1.8.56

Curative Services:

Hospitals	— State Hospital, Brunei
	— District Hospital, Kuala Belait
Fixed Dispensaries (with beds for short stay patients)	{ Tutong
	{ Temburong
Travelling Dispensaries	{ Brunei
	{ Tutong
	{ Temburong
	{ Kuala Belait.

The two hospitals provide excellent facilities for the diagnosis and treatment of all except the most difficult cases. These difficult cases are referred to Kuching or Singapore.

The dispensaries, fixed, road, and river provide for the treatment of minor ailments and injuries. These are manned by hospital assistants, but it has proved possible quite frequently during 1956 for a Medical Officer to accompany them on some of their travels.

TABLE 9.

		1954	1955	1956
State Hospital, Brunei	— In-patient	2311	2132	2010
	Out-patient	27860	30058	31636
District Hospital, Kuala Belait	— In-patient	1169	1257	1166
	Out-patient	35981	36455	36114
Tutong Dispensary	— In-patient	261	100	61
	Out-patient	16138	20118	21067
Temburong Dispensary	— In-patient	21	149	110
	Out-patient	7820	8148	7806
Brunei Travelling Dispensary	— River	1968	1911	1668
	Road	10609	5109	5623
Kuala Belait Travelling	—	3621	4091	6000
Tutong Travelling	—	2129	2522	2616
Temburong Travelling	—	1217	2258	1768

Medical Store:

The Department is fortunate in being generously supplied with funds for the purchase of Medical and Surgical Equipment, drugs and hospital supplies generally. It can be claimed that no patient who seeks the services offered by the Department is deprived of any drug or piece of equipment which may be necessary for his treatment. The quantities and variety of the drugs, instruments, and equipment in use in the hospitals and dispensaries of the State are astonishing and are probably unmatched by any other hospitals of similar size in the whole of Asia, and indeed in most parts of the world.

Considerable attention has been given during the year to improving the system of the purchase, storing and distribution of Medical Stores with the result that considerable economies have been effected, without in any way reducing the amount or quality of the drugs and equipment available for the treatment of patients.

Dental Department:

A second Dental Officer was appointed early in 1956 which made it possible to open a new Dental Clinic in the District Hospital, Kuala Belait in addition to the existing Clinic in the State Hospital, Brunei.

The two Dental Officers in the State have made further progress with the development of a Dental Service. The decision has now been taken that the Government Dental Service shall be primarily a service for school and pre-school children, and secondarily for the relief of pain and for emergency work and some essential work in adults. It has also been accepted that dental health education should be an important feature of the department's progress and this is being directed particularly to school children and expectant and nursing mothers. With this in view the major effort of this department has been directed to the schools. The equipment provided for the department is steadily being improved.

Maternity and Child Welfare:

There is a Maternity and Child Welfare Clinic attached to the State Hospital, Brunei, run by a trained Health Nurse under the supervision of the Health Sister who is in charge of the

training of midwives and domiciliary midwifery throughout the State. The Health Nurse also conducts Clinics in the rural areas of Brunei District.

There is a Maternity and Child Welfare Clinic on *Kampong Ayer* (the village of 9,000 inhabitants built on the Brunei River), run by a Health Sister.

There is a Maternity and Child Welfare Clinic in Kuala Belait run by a Health Sister who also conducts Clinics at Seria, Sungei Liang, Kuala Balai and Labi, the last three places being rural villages in the Belait District.

There is a school for midwives organised and conducted by the Health Sister mentioned in paragraph one, in which midwives are trained for hospital duties, for clinic duties, and for work in the rural areas.

These Clinics, although run by the Health Sisters and Health Nurses, have available to them the services of the two Lady Medical Officers.

Through the perseverance of this staff an ever growing number of women are seeking the help of the Government during the pre- and post-natal periods, and for the care of the infants and children. Nevertheless the number of women who fail to seek, or refuse trained help both during normal and abnormal confinements is still very large, and the fact that the infant mortality rate is five times that of the United Kingdom points to the task which lies in front of the Maternity and Child Welfare Health Staff.

It is not possible with the present system of collecting data relating to deaths to attempt to calculate a maternal mortality rate but it is certain from a knowledge of the number of maternal deaths which comes to the notice of the department in Brunei Town that this figure would be very high.

Return of Ophthalmological Work done in 1956:

(Two visits to Brunei State were made by the Ophthalmologist in 1956, from February 23rd—March 28th and December 15th—22nd January, 1957).

Patients seen	462
Operations performed	64 — 20 major
Spectacles prescribed	102

The greatest incidence of single condition was Pterygium, Cataract, Refractive errors, Trachoma.

Seven total and incurably blind person were seen.

The incidence of trachoma in the State is high—for example Kampong Ayer Malay School 18.8 per cent, Sengkurong Malay School 15 per cent.

Public Health:

It has already been recorded that no serious outbreak of epidemic disease occurred during 1956.

The staff of the Health Department have maintained a careful supervision over the Sanitary Services in the two Municipal areas, and the existing standards have been kept up.

Conservancy:

Brunei—3 men empty 387 nightsoil buckets nightly, with the aid of one conservancy lorry and driver. Kuala Belait-Seria—23 men empty 1,100 nightsoil buckets each night, with the aid of two conservancy lorries and drivers.

The whole system of bucket latrines is unsatisfactory in a town area and the completion of sewerage schemes for three Municipal areas is urgently required.

Scavenging and Disposal of Refuse:

Brunei—3,303 loads of refuse were dumped at the reclamation area mile $\frac{1}{4}$ Jalan Tutong, and covered by 310 truck loads of earth. Fly breeding was controlled by the use of anti-malarial oil.

Kuala Belait-Seria—Refuse from Seria has been disposed of by incineration in the British Malayan Petroleum Company incinerator, and refuse from Kuala Belait has been used to fill a low lying site in the Noxious Trade division of the Municipal Board area.

Slaughter Houses:

Brunei—The new pig slaughter house was opened during this year and the old house demolished. The total numbers of animals slaughtered were—

Pig	4,831
Buffalo	1,233

During the year the responsibility for the ante-mortem examination of animals for slaughter was handed to the Veterinary Department.

Anti-Malarial Work:

Malaria cases reported—Brunei 16, Kuala Belait/Seria 25.

The majority of these cases were found to be relapsed cases. The three towns Brunei, Kuala Belait and Seria continue to be free from Malaria. A large amount of money and effort is expended on mosquito control in these areas, and breeding of the Malaria vector of Brunei, *A. Leucosphyrus* is controlled.

There is still however, particularly in Brunei a great number of nuisance mosquitos, and active measures are under way to reduce this pest.

Larva control is maintained by the use of anti-malarial oiling over very wide areas, and adult control has been started in some areas by means of insecticide fogging. An extensive scheme for permanent anti-malarial drainage by means of sub-soiling and the construction of open concrete drains has been commenced in Brunei, and careful attention to the maintenance of existing drains, and the elimination of stagnant water in low-lying areas, by filling, is now being paid.

The residual insecticide spraying of all homes in the rural areas was continued for the first eight months of the year and then stopped. A Malarial survey carried out since then has shown that the infant parasite rate has been reduced to nil, which is highly satisfactory, but there is evidence in the school children of various parts of the State that Malaria is still a significant disease as a cause of chronic ill-health.

The residual-spraying teams have been reorganised and retrained during the latter part of the year and this work will be resumed in 1957.

During the first eight months of the year 2,549 houses were sprayed using 2,527 lbs of 75% D.D.T. Wettable Powder, and giving protection to 13,568 persons.

Notifiable Diseases:

Malaria	41
Bacilliary Dysentery	3
Diphtheria	4
Typhoid form	6
Paratyphoid form	1
Chicken Pox	1

These figures refer only to those cases which were brought to the notice of the Health Department, and must not be used as a measure of the incidence of any of these diseases in the State, since the Government Medical Service at the present time deals with only a small part of the total diseases occurring in the State.

Bore-Hole Latrines:

A valuable contribution to public health was the construction by the Health staff of 112 bore-hole latrines at the Malay resettlement areas at *Kampong Simpang Muara* and *Kampong Berakas*, where attempts are being made to settle families from *Kampong Ayer*.

Water Supplies:

The piped water supply to Kuala Belait first produced water in consumers houses on Christmas Day, and further progress is being made in areas not yet supplied. A check on the quality of water supplies has been made throughout the year by the bacteriological examination of samples of water from various parts of the supply system at frequent intervals. The water used by two aerated water factories has been checked, and in one case one of the sources of supply has been condemned.

Licensed Premises:

The following licences were issued during the year:—

Hawker	234
Billiard Saloon	7
Coffee and Eating Shop	56
Laundry	2
Coffee Shop	75
Ice and Ice Cream	4
Chekor	11
Market Stall	207
Bakery	16
Barber	4
Lodging House	7
Rice Mill	1
Sago Mill	1
Aerated Water Factory	2
Cold Storage	2

The medical examination of all food hawkers, coffee and food-shop employees, barbers, and all persons handling food has been introduced. This examination includes an X-ray of the chest. All school teachers and school cooks handling school food are similarly medically examined and have their chest X-rayed. Only one positive case of pulmonary tuberculosis and two doubtful cases were found in a total of 350 school teachers examined. Licensed premises and stalls, and all markets were frequently inspected.

Rat Eradication:

The following rats were destroyed during the year:—

Rattus Rattus	1,351
Rattus Novigiosus	655
Others	315

Port Health Work:

Brunei—40 optional Bills of Health were issued to vessels which mostly came from Singapore and Hong Kong.

Kuala Belait—3 optional Bills of Health and 26 Health Certificates were issued to vessels which mostly came from Labuan.

SUMMARY OF CLINICAL WORK DONE IN THE HOSPITAL,
HEALTH AND DENTAL CLINICS OF THE STATE IN 1956.

(a) Major Operations	116
Minor Operations	1,109
Operation Deaths	3
(b) X-Ray Examinations	5,311
(c) Laboratory Examinations	28,969
(d) Physiotherapy Treatments	3,682
(e) Post-mortem Examinations (Medical-Legal)	4
(f) Dental Clinic Attendances	3,110
School Dental Clinic Attendances	4,560
(g) Confinements (Government Midwives)	1,885
Ante-natal Clinic Attendances	10,619
Infant Clinic Attendances	20,275
Home Visits	7,651

(c) PENSIONS SCHEME

The State Pensions Enactment (No. 10 of 1954) was approved by the Sultan in Council on 23rd December, 1954, and was introduced on 1st April, 1955, with retroactive effect from 1st January, 1955. The passing of the Enactment marks a milestone in the history of Overseas Administration in that the Enactment was the first to provide for the introduction of a scheme for the payment of State Pensions in a territory whose population is largely composed of illiterate persons.

The Scheme, non-contributory and without means test, provides benefits as follows:—

- (a) Old Age Pensions,
- (b) Pensions for the blind and allowances for their dependants.
- (c) Allowances for the dependants of Lepers.
- (d) Allowances for the dependants of Lunatics.

- (e) Disability Pensions, and
- (f) Any other Pensions and Allowances as Regulations may prescribe.

Old Age Pensions:

Old age pensions are paid to any person who having attained the age of sixty years, either,

- (a) was born in the State and has resided therein for a period of not less than ten years, or,
- (b) having been born outside the State has resided therein for a period of not less than thirty years.

The period of residence in either case being immediately preceding the date when the person became eligible for the pension.

Old age pensions have been paid with effect from 1st January, 1955. During the year 1955, amounts totalling \$564,430 were paid to 2,363 persons and during the year 1956 the figures were \$584,370 and 2,390 respectively. Old age pensions are paid at the rate of \$20 per person per month.

Pensions for the Blind and Allowances for their Dependants:

Pensions for the blind are paid to persons who are at least fifteen years of age, who are unable to work because of their blindness, and who have resided in the State for a period of not less than ten years immediately preceding the date when they became eligible for the pension. In certain circumstances allowances may be paid to the dependants of blind persons who are in receipt of a pension for the blind.

Pensions for the blind and allowances for their dependants were introduced in July, 1955, and for the six months ended 31st December, 1955, pensions and allowances totalling \$10,360 were paid to 62 blind persons and 47 dependants. During the year 1956, pensions and allowances totalling \$25,530 were paid to 67 blind persons and 47 dependants.

Pensions for the blind are paid at the rate of \$20 per person per month and monthly allowances at the rate of \$10 for persons under the age of 15 years and \$20 for persons over the age of 15 years are paid to dependants.

Allowances for the Dependants of Lepers:

Allowances for the dependants of lepers are payable to any person who is at least fifteen years of age, who has resided in the State for a period of at least ten years immediately preceding the date upon which he became eligible for the allowance, and who is the dependant of a leper receiving approved treatment.

Allowances for the dependants of lepers were introduced in July, 1955, and for the six months ended 31st December, 1955, allowances totalling \$720 were paid to 8 dependants and during the year 1956 the figures were \$640 and 4 respectively.

The allowances are paid at the same rates as for the dependants of blind persons.

Allowances for the Dependants of Lunatics:

Allowances for the dependants of lunatics are payable to any person who is at least fifteen years of age, who has resided in the State for a period of at least ten years immediately preceding the date upon which he became eligible for the allowance and who is the dependant of a lunatic who has either been detained or committed to care.

The allowances were introduced in July, 1955, and for the six months ended 31st December, 1955, allowances totalling \$380 were paid to 5 dependants and for the year 1956 the figures were \$590 and 8 respectively.

The allowances are paid at the same rates as for the dependants of blind persons and lepers.

Disability Pensions:

Disability pensions are provided for persons who are at least fifteen years of age, who are unable to work because of their disability, who have resided in the State for at least ten years immediately preceding the date upon which they became eligible for the allowance, who are likely to be subject to disability for a considerable period and who are undergoing approved medical treatment.

Disability pensions are at the rate of \$20 per month. Regulations authorising the payment of disability pensions have not yet been introduced.

Other Pensions and Allowances:

An amendment to the Enactment was approved by the Sultan in Council on 17th April, 1956, providing for the payment of a rehabilitation allowance for discharged lepers to be introduced with effect from 1st June, 1956. The allowance is at the rate of \$20 per month for six months and provision is made for the allowance to be continued for a further period not exceeding six months. No claims for the allowance were received during 1956.

Only one kind of pension may be awarded in respect of any one person. An elderly blind person, for example, may draw the old age pension or the blind pension, whichever benefits him the more, but he cannot draw both. It is for this reason that the number of blind persons awarded, does not represent the full number of blind persons in Brunei eligible for the award. There is a proviso that in no circumstances shall the blind pension and the blind person's dependence allowance exceed one hundred dollars in respect of any one blind person. There is a similar proviso for the dependants of lepers and lunatics.

The scheme is administered by the Controller of Pensions. From its inception until the end of the first year of its working, the scheme was administered by a specially appointed Pensions Adviser, Mr. H. A. Mck. Billings, of the United Kingdom Ministry of Pensions, who was the first Controller. The office was placed under the aegis of the Commissioner of Development and the salaries and other administrative expenses were a charge on the Development Programme, the pensions payments being a charge on Revenue. In 1956 a Pensions Department was formed and all administrative expenses became a charge on Revenue. The department continued under the control of Mr. Billings until June when the work of instituting and establishing the scheme having been completed Mr. Billings returned to the Ministry of Pensions in the United Kingdom. Mr. Billings left behind a perfectly co-ordinated and smooth functioning department and great credit is due to him for his work in putting the scheme into operation. In June, 1956, the Assistant State Treasurer was appointed Acting Controller of Pensions.

The Controller is assisted by a staff at Headquarters whose duties, inter alia, consist of the preparation of the monthly forms and their distribution with the payment packets to District Officers,

who in turn redistribute to approved Village Headmen who ultimately make payment to the pensioners in the various villages under their control. The pensions are therefore taken to the pensioners who have only a short distance to come to collect. Disabled persons have the pensions taken to their homes. In practice the staff at Headquarters, the District Officers and the Village Headmen have carried out their duties extremely well.

An advisory committee consisting of representatives of the main races and of each district, was appointed in 1955. The duty of the committee is to advise the Controller of Pensions on any matters arising from the working of the Pensions Enactment.

The Enactment provides a right of appeal by unsuccessful claimants to the Sultan in Council. An appeal committee was set up and held its first meeting in October, 1955. During the first year 19 appellants were successful out of 53 who were heard by the committee. In 1956 there were 80 claims rejected by the Controller, of these 60 appeals were lodged and 32 of them were successful.

The Brunei Pensions Department became a member of the International Social Security Association during the first year of its existence. Requests for details of the Scheme have been received from the Commissioner for Labour, Malaya, the Secretary for Social Welfare, Singapore, and from the Director of the Federal Social Security Institute, Yugoslavia.

PENSIONS DEPARTMENT

PENSIONS AND ALLOWANCES AWARDED IN 1956

<i>Type of Pensions</i>	<i>Jan.-Nov. \$</i>	<i>Dec. \$</i>	<i>Total \$</i>	<i>Number of Pension- ers</i>	<i>Depen- dants</i>
OLD AGE PENSIONS					
Brunei Town	309,990	28,780	338,770	1,383	—
Kuala Belait	93,620	8,520	102,140	423	—
Temburong	32,950	2,860	35,810	143	—
Tutong	98,770	8,880	107,650	441	—
	<hr/> \$535,330	<hr/> \$49,040	<hr/> \$584,370	<hr/> 2,390	

BLIND PENSIONS

Brunei Town	17,000	1,490	18,490	48	39
Kuala Belait	2,190	180	2,370	6	4
Temburong	2,000	180	2,180	6	2
Tutong	2,230	260	2,490	7	2
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 23,420	\$ 2,110	\$ 25,530	67	47
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

LEPERS ALLOWANCES

Brunei Town	—	—	—	—	—
Kuala Belait	220	20	240	—	1
Temburong	—	—	—	—	—
Tutong	400	—	400	—	3
	<hr/>	<hr/>	<hr/>		<hr/>
	\$ 620	\$ 20	\$ 640		4
	<hr/>	<hr/>	<hr/>		<hr/>

LUNATICS ALLOWANCES

Brunei	280	—	280	—	3
Kuala Belait	60	—	60	—	1
Temburong	—	—	—	—	—
Tutong	250	—	250	—	4
	<hr/>		<hr/>		<hr/>
	\$ 590		\$ 590		8
	<hr/>		<hr/>		<hr/>

Number of claimants who died during the year 104

Number of pensioners who visited Mecca 10

Number of rejected claims 80

Number of appeals heard 66

Number of successful appeals 32

Number of medical examinations 312

Number of successful medical examinations 100

Type of Pension or Allowance

<i>Cultural Group</i>	<i>Old Age</i>	<i>Blind</i>	<i>Lepers</i>	<i>Lunatics</i>
Malay	1,965	59	—	2
Chinese	181	1	2	1
Iban	57	2	1	—

<i>Cultural Group</i>	<i>Type of Pension or Allowance</i>			
	<i>Old Age</i>	<i>Blind</i>	<i>Lepers</i>	<i>Lunatics</i>
Dusun	154	3	—	—
Murut	12	2	—	—
Javanese	15	—	—	—
Siamese	1	—	—	—
Indian	5	—	—	—
	<hr/> 2,390 <hr/>	<hr/> 67 <hr/>	<hr/> 3 <hr/>	<hr/> 3 <hr/>

CHAPTER VIII

LEGISLATION

THE main body of the law consists of the enactments contained in the Revised Edition of the Laws (1951), together with certain other enactments passed before that date, which were excluded therefrom by virtue of the provisions of section 5 and the Schedule to the Revised Edition of the Laws Enactment (Cap. 1), and all enactments, other than the Revised Edition of the Laws Enactment, passed since the 1st of January, 1952. The enactments passed between 1952 and 1955 have been published in a Supplement to the Revised Edition of the Laws of Brunei. Annual volumes containing the principal and subsidiary legislation enacted and made in 1956 will be published early in 1957.

In addition certain of the Proclamations made by the British Military Administration still retain the force of law by virtue of the provisions of the Proclamations, Transfer of Powers and Interpretation Enactment, 1946.

The legislation has been fit to adopt in the State certain laws from Malaya, Singapore, Sarawak and England.

The laws adopted from Malaya are—

- (a) The Evidence Ordinance, 1950;
- (b) The Bankers Books (Evidence) Ordinance, 1949;
- (c) The Contracts (Malay States) Ordinance, 1950; and
- (d) The Specific Relief (Malay States) Ordinance, 1950.

The subsidiary legislation as amended or replaced from time to time of the Colony of Singapore referred to in the Second and Third Schedules of the Air Navigation Enactment, 1954, apply in the State.

The Penal Code and Criminal Procedure Code have been adopted from the Colony of Sarawak but have been published in the Revised Edition. In addition, Brunei has adopted with certain amendments the Trade Marks Ordinance and Merchandise Marks Ordinance of Sarawak. These Ordinances have now, by virtue of the provisions of the Adopted Laws (Publication in the *Gazette*) Enactment, 1956, been published in the State under the short titles of the Trade Marks Enactment, 1956, and the Merchandise Marks Enactment, 1956.

By the Application of Laws Enactment (Cap. 2 of the Revised Edition) the English common law, principles of equity and statutes of general application which were in force on the 25th day of April, 1951, shall, with necessary modifications, apply in cases where there is no provision either in the enacted or adopted laws of the State.

A revision of the subsidiary legislation made up to 31st December, 1955, carried out by virtue of the provisions of the Revised Edition of the Subsidiary Legislation Enactment, 1956, is at present being undertaken and it is hoped that it will be ready for publication by the middle of 1957.

The official language of all legislation is English.

The State Council met on six occasions during 1956 and the following enactments were passed:—

No. 1—The Inventions (Amendments) Enactment, 1956.

This Enactment amended the Inventions Enactment (Cap. 72) so as to secure that patentees are protected between the time they file an application for a patent in the United Kingdom, Singapore or the Federation of Malaya, and the date of the filing of the complete specification of such patent in the territory concerned.

No. 2—The Public Officers Guarantee Fund (Repeal) Enactment, 1956.

This Enactment provided for the winding up of the Public Officers Guarantee Fund as it is considered that this Fund no longer serves any really useful purpose in view of the fact that the amount of the contributions of the respective officers bears no practical relationship to the amounts of money which such

officers have to handle. When the Resident is satisfied that the moneys in the fund have been properly distributed he will publish a notice in the *Gazette* formally dissolving the Fund and thereupon the Public Officers Guarantee Fund Enactment will be repealed (Cap. 81).

No. 3—The Japanese Judgments and Civil Proceedings (Repeal) Enactment, 1956.

This Enactment removed from the Statute Book the Japanese Judgments and Civil Proceedings Enactment, 1947, which, though enacted, was never brought into force.

No. 4—The Rubber Regulation (Repeal) Enactment, 1956.

This Enactment removed from the Statute Book the Rubber Regulation Enactment, 1936, which was no longer used and served no useful purpose.

No. 5—The International Finance Corporation Enactment, 1956.

This Enactment provided that any Order in Council made under section 3 of the International Finance Corporation Act, 1955, of the United Kingdom, for the carrying into effect of any of the provisions of the Agreement mentioned in that section should have the force of law in Brunei without further legislation.

No. 6—The Powers of Attorney (Amendment) Enactment, 1956.

This Enactment amended the Powers of Attorney Enactment (Cap. 61) by making it possible for the Resident to delegate to fit and proper persons his powers and duties under the Enactment. It also provided that Branch Registries should submit returns to the Resident in order that the details contained in such returns might be inserted in the Central Register.

No. 7—The Adopted Laws (Publication in the Gazette) Enactment 1956.

A number of laws of England, Malaya, Sarawak and Singapore have been applied to the State and this Enactment enables the Legal Adviser with the approval of the Sultan to publish such laws with consequential amendments in the Brunei *Gazette* and thereby makes them available to the public.

No. 8—The Custodian of Property (Repeal) Enactment, 1956.

This Enactment repealed the Custodian of Property Proclamation, 1945, as the work of the Custodian was completed. It was provided for the transfer to the General Revenue of the State of any moneys which had not previously been claimed by the 1st July, 1956.

No. 9—The War Damage (Repeal) Enactment, 1956.

This Enactment repealed the War Damage Enactment, 1950, as the War Damage Commission had completed its tasks. It also provided for the revocation of any awards not claimed by the 1st July, 1956.

No. 10—The Local Councils Enactment, 1956.

This Enactment provided for the establishment of local government in the State and for all matters necessary or incidental thereto. It has not yet been brought into force.

No. 11—The Bills of Sale Enactment, 1956.

This Enactment provided for the registration of bills of sale and declared certain bills of sale as void. It has not yet been brought into force.

No. 12—The Telecommunications Enactment, 1956.

This Enactment revised the law relating to Telecommunications. It has not yet been brought into force.

No. 13—The Poisons Enactment, 1956.

This Enactment made provision for the regulation of the importation, possession, manufacture, compounding, storage, transport and sale of poisons. It has not yet been brought into force.

No. 14—The Dangerous Drugs Enactment, 1956.

This Enactment provided for the regulation of the importation, exportation, manufacture, sale and use of opium and of certain other dangerous drugs and substances and for purposes connected therewith. It has not yet been brought into force.

No. 15—The Medical Practitioners and Dentists Enactment, 1956.

This Enactment provided for the registration of doctors and dentists within the State to ensure that only properly qualified persons should carry out these important duties.

No. 16—The Police Force (Amendment) Enactment, 1956.

In 1955 an Enactment was passed amending the Police Force Enactment (Cap. 50) so that in certain circumstances police officers from Malaya and Singapore (in addition to Sarawak and North Borneo) could be sent for service in the State. That Enactment omitted to make certain necessary concomitant alterations to certain sections of the main Enactment, and the 1956 amending Enactment rectified this.

No. 17—The Fingerprints Enactment, 1956

This Enactment which provided for the taking and filing of the fingerprints, and for the proving of previous convictions, of accused and convicted persons, repealed and replaced the Registration of Criminals Enactment (Cap. 19).

No. 18—The Banking Enactment, 1956.

This Enactment provided for the regulation and licensing of the business of banking.

No. 19—The Exchange Control Enactment, 1956.

This Enactment contained provisions relating to all aspects of exchange control. Its object was to replace the existing law contained in a British Military Administration Proclamation of 1946, and to bring the legislation dealing with exchange control into line with the United Kingdom Exchange Control Act, 1947, and similar legislation recently enacted in Singapore, the Federation of Malaya, North Borneo and Sarawak.

No. 20—The Bankruptcy Enactment, 1956.

This Enactment established a law of Bankruptcy in the State. It is based on the Hong Kong Bankruptcy Ordinance which in its turns followed the English Bankruptcy Acts of 1914 and 1926.

No. 21—Religious Council, State Custom and Kathis Courts (Amendment) Enactment, 1956.

This Enactment amended the Religious Council, State Custom and Kathis Courts Enactment in the following respects—

- (a) by requiring the Chief Kathi to sit with two assessors when hearing cases of illicit intercourse;
- (b) by enlarging the powers of the Sultan in Religious Council when hearing criminal appeals so as—
 - (i) to make it clear that he has *inter alia* the power to dismiss an appeal, and
 - (ii) to clarify his other powers; and
- (c) by granting powers of arrest in certain cases to certain authorised *pegawai masjid* when there is no police officer available to carry out arrest.

No. 22—The Revised Edition of the Subsidiary Legislation Enactment, 1956.

This Enactment provides for a revised edition of subsidiary legislation to be prepared, and Mr. G. V. C. Young who is at present holding the post of Deputy Legal Adviser has been authorised to carry out this revision.

No. 23—The Immigration Enactment, 1956.

This Enactment provides for the regulation of immigration into the State. It has not yet been brought into force.

No. 24—The National Registration (Repeal) Enactment, 1956.

The system of registration under the National Registration Enactment (Cap. 51) proved unsatisfactory and it was considered that, unless a new system of registration were started, it would not be possible for the Enactment to function properly. This Enactment accordingly repealed the National Registration Enactment.

No. 25—The Companies Enactment, 1956.

This Enactment introduced provisions for the registration of Companies in Brunei. The Enactment is based on the Hong Kong Companies Ordinance which in its turn followed the English Companies Act of 1929.

CHAPTER IX

JUSTICE, POLICE AND PRISON

THE Courts constituted in the State for the administration of civil and criminal law are as follows:—

The Supreme Court of Sarawak, North Borneo and Brunei,
consisting of the Court of Appeal and the High Court;

Courts of Magistrates of the First Class;

Courts of Magistrates of the Second Class;

Courts of Magistrates of the Third Class;

Court of the Chief Kathi, and

Courts of Kathis.

This Judicial system was created by the Sarawak, North Borneo and Brunei (Courts) Order in Council, 1951, and the Courts Enactment (Cap. 6). The old Court of Appeal and the Court of the Resident have been abolished.

The Supreme Court. The Supreme Court, which has a unified jurisdiction over the three territories of Sarawak, North Borneo and Brunei, consists of the Chief Justice (styled the Chief Justice of Sarawak, North Borneo and Brunei) and as many Puisne Judges as may from time to time be appointed.

An uneven number, not being less than three, of Supreme Court Judges constitutes the Court of Appeal. In certain special circumstances two Judges can constitute the Court. It deals with appeals, criminal and civil, from the High Court.

One Supreme Court Judge constitutes the High Court. The High Court has an unlimited original jurisdiction in all civil matters other than the annulment of marriages solemnized between Christians in the United Kingdom or any British Colony and matters concerning Islamic marriage, religion and divorce. It has an unlimited criminal jurisdiction in the case of all offences

committed in the State or on the high seas on board ships registered in the State, or committed by subjects of the State on the high seas aboard any ship, whether registered in the State or not. It may pass any sentence authorised by law, including sentence of death. Appeals lie to the High Court, in civil and criminal cases, from the judgments of First Class Magistrates, sitting in either original or appellate jurisdiction and from the judgments of Second Class Magistrates.

Courts of Magistrates of the First Class. The Court of a Magistrate of the First Class has original civil jurisdiction in suits involving not more than \$500 (which limit may be specially extended by the Chief Justice to \$1,000), and original criminal jurisdiction in the case of offences for which the maximum term of imprisonment provided by the law does not exceed two years and the maximum fine does not exceed \$5,000. The maximum sentences which may be passed by the Court are imprisonment for twelve months and/or a fine of \$1,000. The Court has an appellate criminal and civil jurisdiction in respect of cases tried by Magistrates of the Third Class.

Courts of Second Class Magistrates. The Court of a Magistrate of the Second Class has civil jurisdiction in suits involving not more than \$250 and criminal jurisdiction in the case of offences for which the maximum term of imprisonment provided by law does not exceed six months and the maximum fine does not exceed \$1,000. The maximum sentences which may be passed by the Court are imprisonment for six months and/or a fine of \$250.

Courts of Third Class Magistrates. The Court of a Magistrate of the Third Class has civil jurisdiction in suits involving not more than \$50 and criminal jurisdiction in the case of offences for which the maximum term of imprisonment provided by law does not exceed six months, and the maximum fine does not exceed \$250. The maximum sentences which may be passed by the Court are imprisonment for two months and/or a fine of \$100.

The Courts of the Chief Kathi and Kathis. The Court of the Chief Kathi and the Courts of the Kathis deal solely with question concerning the Islamic religion, marriage and divorce. The Court of the Chief Kathi may in its criminal jurisdiction try

any offence committed by a Muslim and punishable under the Religious Council, State Custom and Kathis Courts Enactment, 1955 (No. 20 of 1955), and may impose any punishment therefor provided; and may, in its civil jurisdiction, hear and determine all actions and proceedings in which all the parties profess the Islamic religion and which relate to—

- (a) betrothal, marriage, divorce, nullity of marriage or judicial separation;
- (b) any disposition of, or claim to, property arising out of any of the matters set out in paragraph (a);
- (c) maintenance of dependants, legitimacy, guardianship or custody of infants;
- (d) division of, or claims, to, *sa'pencharian* property;
- (e) determination of the persons entitled to share in the estate of a deceased person who professed the Islamic religion, or of the shares to which such persons are respectively entitled;
- (f) wills or death-bed gifts of a deceased person who professed the Islamic religion;
- (g) gifts *inter vivos* or settlements made without consideration in money or money's worth, by a person professing the Islamic religion;
- (h) *wakaf* or *nazr*; or
- (i) other matters in respect of which jurisdiction is conferred by any written law.

The Court of a Kathi may in its criminal jurisdiction try any offence committed by a Muslim and punishable under the Religious Council, State Custom and Kathis Courts Enactment, 1955, for which the maximum punishment provided by law does not exceed imprisonment for one month or a fine of one hundred dollars or both, and may impose any punishment therefor provided; and in its civil jurisdiction may hear and determine all such actions and proceedings as the Courts of the Chief Kathi is authorised to hear and determine, in which the amount or value of the subject-matter does not exceed five hundred dollars, or is not capable of estimation in terms of money.

Procedure in the Courts is regulated by—

- (a) The Courts Enactment (Cap. 6);
- (b) The Sarawak, North Borneo and Brunei (Courts) Order in Council, 1951;
- (c) The Sarawak, North Borneo and Brunei Court of Appeal Rules, 1951;
- (d) The Supreme Court of Sarawak, North Borneo and Brunei (Appeal to Privy Council) Order in Council, 1951;
- (e) The Magistrates Courts (Civil Appeal) Rules, 1952;
- (f) The Magistrates Courts (Court Fees) Rules, 1952;
- (g) The Magistrates Courts (Execution Proceedings) Rules, 1954;
- (h) The High Court (Fees) Rules, 1954;
- (i) The High Court Execution Proceedings;
- (j) The High Court of Sarawak, North Borneo and Brunei (Civil Procedure) Rules; and
- (k) The Magistrates Courts (Civil Procedure) Rules, 1955.

There were two First Class Magistrates, six Second Class Magistrates, and five Third Class Magistrates functioning in the State during the year.

Table A shows the number of cases instituted and disposed of in the courts of Brunei, Belait, Seria, Temburong, Muara and Tutong; other than the Chief Kathi's Court and the Kathi's Court.

Table B shows the number of cases instituted and disposed of in the Chief Kathi's Court and the *Kathis'* Courts.

TABLE A
COURT RETURN OF FIGURES (CRIMINAL AND CIVIL CASES) FOR THE YEAR 1956
CRIMINAL

District	High Court		1st Class Magistrate's Court		2nd Class Magistrate's Court		3rd Class Magistrate's Court		Total		No. of persons sentenced	No. of accused discharged	No. of cases withdrawn	No. of cases pending	No. of Transfer
	No. of Cases	No. of Accused	No. of Cases	No. of Accused	No. of Cases	No. of Accused	No. of Cases	No. of Accused	No. of Cases	No. of Accused					
Brunei	3	3	7	7	317	376	251	275	578	661	607	8	41	3	2
Belait	9	9	41	72	124	177	96	115	270	373	353	11	6	2	1
Seria	—	—	—	—	690	807	12	12	702	819	757	32	23	4	3
Temburong	—	—	—	—	8	25	—	—	8	25	25	—	—	—	—
Tutong	—	—	—	—	23	23	—	—	23	23	20	—	3	—	—
Muara	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	12	12	48	79	1162	1408	359	402	1581	1901	1762	51	73	9	6

CIVIL

District	No. of Cases Judge of Appeal		No. of Cases in High Court		No. of Cases in 1st Class Magistrate's Court		No. of Cases in 2nd Class Magistrate's Court		No. of Cases in 3rd Class Magistrate's Court		No. of Cases dismissed	Amount Claimed	
	No. of Cases	No. of Accused	No. of Cases	No. of Accused	No. of Cases	No. of Accused	No. of Cases	No. of Accused	No. of Cases	No. of Accused			
Brunei	—	—	2	9	—	—	15	—	—	—	—	15,256.89	—
Belait	—	—	28	31	—	—	9	—	—	—	2	190,438.86	—
Seria	—	—	—	—	—	—	12	—	—	—	—	1,572.12	—
Temburong	—	—	—	1	—	—	—	—	—	—	—	420.74	—
Tutong	—	—	—	1	—	—	—	—	—	—	—	488.50	—
Muara	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	30	42	—	—	36	—	—	—	2	\$208,177.11	—

District	Letters of Administration	Probate (Re-sealing)	Coroner's Inquest	Criminal Appeal	Civil Appeal
Brunei	6	—	8	—	—
Belait	19	—	6	1	—
Seria	—	—	3	—	—
Temburong	—	—	—	—	—
Tutong	—	—	—	—	—
Muara	—	—	—	—	—
Total	25	—	17	1	—

NOTE:— 1. Of the 1,901 offenders 1,882 were adults and 19 were juveniles.

Of the 1,882 adult offenders convictions were registered in 1,746, 48 were discharged 73 had their cases withdrawn (by prosecution), 9 pending and 6 transferred.

Of the 19 juvenile offenders convictions were registered in 16, 3 were discharged.

2. Of the persons convicted—

(1) 40 were punished by imprisonment and fine, the most severe sentence imposed being 18 months and \$8,070.00 fine;

(2) 21 were punished by imprisonment, the highest being 1 year;

(3) 1,559 were punished by fine, the highest fine imposed being \$400.00;

(4) 28 were discharged on probation;

(5) 114 were cautioned and discharged.

TABLE B

KATHIS COURTS

Courts Returns of Figures for the year 1956.

CRIMINAL

District	No. of cases in Kathis' Court	No. of persons sentenced	No. of Accused discharged	No. of Cases withdrawn	No. of Cases pending	No. of Cases transferred
Brunei	16	14	1	1	—	—
Belait	4	3	—	1	—	—
Tutong	—	—	—	—	—	—
Temburong	2	1	—	1	—	—
Muara	—	—	—	—	—	—
Total	22	18	1	3	—	—

POLICE

Organisation:

The Chief Police Officer and his staff work in the Headquarters at Brunei Town. This building also houses the Officer Commanding Police District, Brunei; Brunei Town Police Station; the Superintendent, Fire Brigade; the Immigration Office, Brunei; and the Vehicle Registration, Licensing and Examination Office.

Site clearing, etc. for a new Police Headquarters in Brunei Town is scheduled to start in 1957.

New Immigration and Land Transport Department Offices will, it is hoped, be ready for occupation in 1957.

The C.I.D. and Special Branch Headquarters remain in Kuala Belait. It is hoped that they will move into the new Police Headquarters in due course.

There has been no change in the organisation of the 2 Police Districts. The Radio, Traffic and Transport Branches, and the Brunei Fire Brigade, constitute specialised Branches.

Work has started on the new Belait District Police Headquarters at Panaga and when this is completed, the District will be re-organised.

The Federation of Malaya Police Detachment arrived on 15th September, 1956, and are stationed in the Belait District.

Recruit training is carried out at the Police Training School, Kuching, Sarawak.

The C.I.D.:

The Officer Commanding Police District of each District is responsible for all matters of criminal intelligence and investigation within their commands.

The Special Branch:

The Branch is staffed mainly by Sarawak Constabulary personnel posted to Brunei.

The Branch, with Headquarters at Kuala Belait, is commanded by an Assistant Superintendent.

The Branch is responsible for the collection, collation and assessment of security intelligence, and the prevention and detection of all subversive activity.

Strength and Distribution:

	<i>Authorised</i>	<i>Actual</i>
Chief Police Officer	1	1
Gazetted Officers	4	2
Chief Inspectors	1	1
Senior Inspectors	2	1
Inspectors	11	6
Probationary Inspectors	1	4
Sergeant Major	4	4
Sergeant	20	18
Corporal	27	19
Lance Corporal	33	29
Police Constables	308	218
	<hr/>	<hr/>
TOTAL	412	303
	<hr/>	<hr/>

This table shows the distribution by Race:

<i>Nationality</i>	<i>G.Os.</i>	<i>Inspectors</i>	<i>Other Ranks</i>	<i>Total</i>
Chinese	—	2	7	9
Eurasian	—	1	1	2
European	2	—	—	2
Malay	1	9	248	258
Indian	—	—	1	1
Sea Dayak	—	—	31	31
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	3	12	288	303
	<hr/>	<hr/>	<hr/>	<hr/>

Sarawak Constabulary—Field Force Platoon:

	<i>Authorised</i>	<i>Actual</i>
Gazetted Officers	1	1
Inspectors	1	1
Sergeant	1	1
Corporal	—	—
Lance Corporal	4	4
Police Constables	36	40
	<hr/>	<hr/>
TOTAL	43	47
	<hr/>	<hr/>

This table shows the distribution by Race:

<i>Nationality</i>	<i>G.Os.</i>	<i>Inspectors</i>	<i>Other Ranks</i>	<i>Total</i>
Chinese	—	—	1	1
European	1	—	—	1
Kedayans	—	—	9	9
Kelabit	—	—	11	11
Kenyah	—	—	17	17
Sea Dayak	—	1	7	8
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	1	1	45	47
	<hr/>	<hr/>	<hr/>	<hr/>

Sarawak Constabulary—Special Branch:

	<i>Authorised</i>	<i>Actual</i>
Gazetted Officers	1	1
Inspectors	2	2
Sergeant	—	—
Corporal	—	—
Lance Corporal	1	1
Police Constables	1	1
	<hr/>	<hr/>
TOTAL	5	5
	<hr/>	<hr/>

This table shows the distribution by Race:

<i>Nationality</i>	<i>G.Os.</i>	<i>Inspectors</i>	<i>Other Ranks</i>	<i>Total</i>
Chinese	—	1	1	2
European	1	—	—	1
Malay	—	1	1	2
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	1	1	1	5
	<hr/>	<hr/>	<hr/>	<hr/>

Federation of Malaya Police Force Detachment, Brunei:

	<i>Authorised</i>	<i>Actual</i>
Gazetted Officers	2	2
Inspectors	1	1
Sergeant Majors	1	1
Sergeant	3	3
Corporal	16	15
Lance Corporal	—	—
Police Constables	80	79
	<hr/>	<hr/>
TOTAL	103	101
	<hr/>	<hr/>

This table shows the distribution by Race:

<i>Nationality</i>	<i>G.Os.</i>	<i>Inspectors</i>	<i>Other Ranks</i>	<i>Total</i>
European	2	—	—	2
Malay	—	1	98	99
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	2	1	98	101
	<hr/>	<hr/>	<hr/>	<hr/>

The Sarawak Field Force Platoon:

The Sarawak Field Force Platoon is a Force reserve for internal security duties, and is trained on para-military lines. The Platoon also undertakes long and short distance patrols into the interior.

The Federation of Malaya Police Force Detachment:

This Detachment is employed on regular Police duties in the Belait District, and makes up the difference between the actual and authorised strength of the Brunei State Police Force.

The Oilfields Security Force: (The Brunei Police Volunteer Special Force).

This Force comprises 218 all ranks—it was raised in 1954 for duties within the Oilfields area.

All members are on the staff of the British Malayan Petroleum Company.

The Force is divided into 2 groups—"Technical" and "Support". The Technical group after basic training, does a minimum of re-training. The Support group is very active in re-training and takes part in all Ceremonial Parades with the regular Units.

Almost all ranks of the Support group attended a fulltime one-week Training Camp at Telesai.

PERSONNEL

Appointments:

Mr. A. N. Outram, Assistant Commissioner, was appointed Chief Police Officer on 21st March, 1956, vice Superintendent J. G. C. Kirby-Turner.

Mr. B. R. P. Edwards, Assistant Superintendent of Police, was appointed Officer Commanding Police District, Belait, on 8th July, 1956, vice Assistant Superintendent T. F. Stone.

Pengiran Jaya, Senior Inspector, was appointed an Assistant Superintendent on 1st September, 1956.

Assistant Superintendent Jaya was appointed Officer Commanding Police District, Brunei District, vice Inspector B. M. G. Carvalho on 30th May, 1956.

Awards:

THE COLONIAL POLICE AND FIRE BRIGADE LONG SERVICE MEDAL

Cpl. No. 70 Pengiran Bamit

THE BRUNEI POLICE MEDAL

Cpl. No. 74 Pengiran Besar

39 Members of the Force were commended for outstanding work by the Chief Police Officer, and 18 were granted rewards amounting to \$215.

RECRUITING

The average educational standard of recruits has been maintained at Standard III in a Malay School.

Thirty-four recruits were appointed Police Constables in the Uniform Branch of the Force. Of the total number of recruits appointed during the year, 11 successfully completed their training at the Police Training School, Kuching, and were posted to Districts. Forty-three are still under training and 3 were discharged as being unlikely to become efficient policemen.

Of the 61 men recruited during the year, 55 were Malays and 6 Chinese. The figure for Chinese recruits is still far too low in ratio to the Chinese population.

TRAINING AND EDUCATION

On joining the Force, a recruit is given 220 training days' basic training at the Police Training School, Sarawak Constabulary, Kuching. The syllabus is the same as for the Sarawak Constabulary.

Every member of the Rank and File in every District attends a two-hour instruction class per week. This is arranged for every week of the year and covers—

- (a) Penal Code
- (b) C.P.C.
- (c) Evidence Enactment
- (d) General Enactments
- (e) Police General Orders.

Eight N.C.Os. and P.Cs. attended Refresher Courses at the Police Training School during the year.

One School teacher and 2 Religious teachers are employed in the Force to give free lessons on the "three R's." and on Religion to Muslim members of the Force.

Three Police Inspectors were appointed from Sergeant rank in the Federation of Malaya Police Force, and there was one direct entry who attended a P.I's. course with the Federation of Malaya Police Force at Kuala Lumpur.

Two Inspectors are undergoing training with the Singapore Police Force.

One Chief Inspector attended the Junior Course at the Police College, Ryton-on-Dunsmore, near Coventry.

HEALTH

The health of the Force remains satisfactory.

WELFARE

The supervision of the welfare of the various Branches of the Force continues to be the immediate responsibility of the Gazetted Officer in Charge, and regular meetings of the various Welfare Committees were held.

No serious complaints were received during the year.

The State Information Service Film Unit continued to exhibit 16 mm. English and Malay films for members of the Rank and File and their families.

A "Tattoo" was held in September in conjunction with the R.A.F. band from Singapore.

The Police Co-operative Thrift and Loan Society membership numbered 172.

The assets of this Society at the end of the year were—

Cash at bank	\$12,525.09
Hong Kong & Shanghai Banking Corporation (Savings Bank)	\$25,487.57
Loan balance from members	\$ 7,453.00
Loans were granted amounting to	\$12,595.00

Children's parties were held at Hari Raya.

A children's playground with swings, see-saw, slides, etc. was opened in Brunei District during the year.

Messes and Canteens operate at the following Police Stations:—

Brunei
Seria
Kuala Belait
Panaga Barracks.

UNIFORMS AND ACCOUTREMENTS

Although regular supplies of accoutrements were received from the Crown Agents, there are still some Indents outstanding. The contract tailor continued to supply the Force with uniforms. A new type of uniform was approved:—

- (a) Working dress — Dark green side cap with a Police Badge
Silver grey shirt
Khaki shorts
Dark green hose tops
Dark green short puttees
Black boots
Dark green lanyard
Black Leather belt
- (b) Ceremonial dress — Dark green side cap with Police badge
White Drill tunic
Dark green serge slacks
Black boots
Black belt
Dark green lanyard
Dark green shoulder straps

The new Armoury (air conditioned) was completed at Kuala Belait District Police Headquarters.

RADIO COMMUNICATIONS

The radio equipment consists of—

H.F. — 1 set at Brunei Town
2 sets at Kuala Belait.

Communication is maintained with Police at Miri, Kuching (through Miri), Labuan and Jesselton.

V.H.F. — 4 Fixed stations:—

1 at Brunei Town
1 at Seria Police Station
1 at Kuala Belait
1 at Miri

24 Mobile sets in various Police Vehicles.

ACCIDENTS

	1956	1955
Accidents	262	253
Casualties (including persons killed)	48	38
Persons killed	4	4

At the end of 1956, the number of vehicles registered in the State was 15,253 mechanically and non-mechanically propelled. Thus, there is at least 1 vehicle to every 40.7 persons.

The following Legislation came into force on 1st January, 1956:—

The Road Traffic Enactment, 1954; and
The Road Traffic Regulations, 1955.

OFFENCES

The number of seizable offences known to the Police in 1956 was 719.

The value of property stolen, as estimated by the owners, was \$30,385 compared with \$125,080.52 in 1955. The value of property recovered was \$7,376.10 compared with \$86,683.50 in 1955.

Crime statistics are shown at Appendix "J".

MISCELLANEOUS

Suicides and Attempts:

There were 4 suicides and 2 attempted suicides as compared with 1 attempted suicide in 1955.

Aliens Registered:

38,924 aliens reported their arrival in 1956; 36,037 of whom were in transit and 2,887 were registered as new residents.

EXPENDITURE

The following table shows the cost of the Police Force during the year:—

	<i>Estimated Expenditure</i>	<i>Actual Expenditure</i>
Personal Emoluments	\$1,090,233.00	\$1,078,007.30
Other Charges:		
Annually Recurrent	430,550.00	287,879.20
Special Expenditure	208,853.79	116,078.04
TOTAL:	<u>\$1,729,636.79</u>	<u>\$1,481,964.54</u>

The total cost of \$1,481,964.54 represents approximately \$21.03 per head of the estimated population of 71,401. This calculation takes no account of revenue collected by the Force.

Police Reward Fund:

The assets of the Fund on 31st December, 1956, were \$2,089.74. Rewards totalling \$238.00 were paid to the Rank and File.

FIRE BRIGADE

The Fire Brigade comprises the following Stations:—

Brunei Town
Berakas Airport
Kuala Belait.

Appliances on charge are:—

Brunei Town	— 1 Willys Jeep Fire Engine 1 Bedford fire-tender
Berakas Airport	— 1 Bedford fire-tender 1 Trailer fire-tender 1 CO ₂ fire trailer
Kuala Belait	— 1 Willys Jeep Fire Engine

Thirteen Firemen were trained, through the courtesy of the British Malayan Petroleum Company, Limited, at the Fire Brigade Headquarters, Seria.

The Police Team from Kuala Belait were the “runners-up” in the Annual Competition in the Belait District.

There were no serious fires during the year.

LAND TRANSPORT

The Chief Police Officer was appointed Controller of Land Transport, under the Road Traffic Enactment 1954, which came into force on 1st January, 1956.

This Department carried through the year in temporary quarters both in Brunei and Kuala Belait. New accommodation should be ready in Brunei in early 1957, and later in the year in Belait.

The Department is responsible for the Registration, Licensing and Examination of all motor vehicles and drivers.

The following table shows the number of vehicles registered as at 31st December, 1956:—

Motor cars (private)	821
Taxis	41
Land Rovers	189
Trucks	965
Buses	75
Other vehicles	795

5,880 driving licences were issued.

\$319,826.50 revenue was collected.

IMMIGRATION

The Chief Police Officer is the Senior Immigration Officer for the State.

The following tables shows the number of persons entering and leaving the State during the year:—

<i>Nationality</i>	<i>Entering</i>		<i>Leaving</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
American	37	21	39	20
British (Indigenous)	1,481	512	1,437	507
British (Dayaks)	1,713	216	1,765	197
British (Malays)	7,361	3,537	6,945	3,314
British (Non Indigenous)	541	269	417	247
Burmese	31	24	49	42
Chinese (British and Aliens)	13,556	5,435	12,414	4,973
Dutch	311	144	279	149
French	23	9	19	7
Indian and Pakistanis	1,530	195	1,344	174
Indonesian	90	26	73	16
Swiss	19	8	19	6
Others	1,519	316	1,198	287
TOTAL:	28,212	10,712	26,098	9,939

Revenue collected for the year was \$23,208.70.

PRISONS

The State's main prison is situated at Jerudong, about 10 miles from Brunei Town, and can accommodate 46 prisoners. There is a small prison at Kuala Belait but prisoners serving sentences of over two weeks imprisonment are sent to the main prison at Jerudong.

The strength of the Prison Department at the end of the year totalled 12, consisting of:—

- 1 Gaoler
- 1 Head Warder
- 9 Warders
- 1 Clerk

Male prisoners are employed extra-murally whenever possible but the upkeep of the prison compound and buildings limits such employment. In addition, the upkeep of the newly started vegetable and flower gardens which are situated within the prison compound, necessitates the employment of the majority of the prisoners within the compound. Female prisoners are engaged on household duties and undertake sewing and mending as occasion demands.

Youthful offenders are sent to the Boys Home in Sarawak where facilities for training and rehabilitation are available. Sick prisoners are sent to the hospital for treatment.

Visiting Justices are appointed to visit the Prison every month, and their remarks and suggestions are noted in the special book provided.

Prison statistics for 1956 are as follows:

1. Prison Population by race —	Malay	22
	Indian	4
	Chinese	16
	Iban	7
	Dusun	2

2. Classification by age groups:—

Under 20 Years	5
20 — 25 „	15
26 — 30 „	5
31 — 40 „	16
41 — 50 „	4
Over 50 „	6

3. Classification by sentences:—

Under 1 month	12
1 — 3 „	22
4 — 6 „	7
7 — 12 „	6
Over 12 „	4

CHAPTER X

PUBLIC WORKS AND UTILITIES

PUBLIC WORKS

General:

THE total expenditure of the Public Works Department for the year 1956 was \$24,929,260 which shows an increase of approximately 27.7 per cent over the amount spent in 1955. Of this total \$10,379,760 was expended from Part I of the Estimates as compared with the actual expenditure of \$9,330,200 in 1955. The remaining \$14,549,500 was expended under Part II of the Estimates for which a total of \$18,997,300 under the control of the State Engineer, was approved for 1956 for works to be undertaken under the Development Plan over the year 1954-1958. The expenditure represents 70.8 per cent of the approved expenditure.

Staff:

1956 saw a further improvement in the staff position of the Public Works Department and the only post still remaining to be filled is that of Architect.

Throughout 1956 Mr. G. T. Myles, B.A., B.A.I. (Dublin), M.I.C.E., an Officer on secondment from Sarawak Establishment continued to act as State Engineer, Brunei. In May Mr. Myles proceeded on long leave and the position of State Engineer was carried out by Mr. L. H. Hyett who was formerly Divisional Engineer for Fourth and Fifth Divisions in Sarawak.

Mr. D. J. Causby, B.E., carried on as Assistant State Engineer, Kuala Belait and in this position he was ably assisted by Mr. Wong Chow Kee as Assistant Engineer and Mr. O. Vitte, B.E., A.M.I.E. (Aust.), took over the position of Assistant State Engineer, Brunei. Mr. M. J. Caldwell, B.Sc., A.M.I.E., A.M.I.W.E., was appointed Water Engineer and his appointment has enabled rapid progress to be made in the planning and construction of various water supply schemes throughout the State. During the

year P.W.D. took over the construction of the Kuala Belait-Seria Water Supply Scheme from consultants and Mr. A. J. Sharp was appointed as Resident Engineer-in-Charge of the construction work.

The Roads Section was brought up to full strength with the appointment of Mr. P. G. Lindsay, Dip. C.E. (Sydney), as Senior Roads Engineer and the arrival of two Road Foremen, Messrs. V. Brassil and P. Nolan. The Heavy Equipment Section was incorporated into the Roads Section and Mr. W. C. Wilkinson took over as Earthmoving Engineer.

Mr. G. J. Cliff continued on as Chief Roads Engineer assisted by Road Engineers I. J. M. Kelly, D. J. S. Brookes and C. J. Powter and Road Foreman L. Cowan, R. Walker and G. Garden.

The staff position in the Workshop Section also improved greatly during 1956 with the appointment of Mr. Crosby-Emery as Officer-in-Charge, Brunei and Mr. G. L. Malcolm as Officer-in-Charge, Kuala Belait. Mr. A. M. Stuart arrived to take over the position of Workshop Supervisor of Heavy Equipment and Mr. S. McCarthy was appointed as Workshop Supervisor of Transport Vehicles. Mr. J. A. Rolph continued to act as Mechanical Engineer and Mr. W. H. Doughty was transferred from Brunei to assist Mr. Malcolm in Kuala Belait.

Further appointments of Technical Assistants and Overseers were also made, and this expansion in trained staff has enabled the Public Works Department to carry out a very heavy works programme 1956.

Labour:

The supply of unskilled labour has reached the position where the supply exceeds the demand. However there is still a shortage of skilled tradesmen and it has been necessary to recruit men from Hong Kong to carry out skilled work. It is expected that 22 local boys will complete their training at the B.M.P. Trades School in 1957 and their absorption in P.W.D. should relieve the situation considerably. Local men have been trained to operate the large amount of complex road building equipment and on the whole they have proved to be quick learners and efficient operators.

Contractors:

A considerable number of new contractors have been registered in the State during the year, and there are now 127 registered contractors enrolled in the Department's Register. These are made up as follows:—

26	—	Class A
37	—	Class B
53	—	Class C
11	—	Miscellaneous—Electrical Plumbing Stone Furniture.

The Classification is made up thus:—

Class A—can tender for an unlimited amount.

Class B—can tender up to \$150,000.

Class C—can tender up to \$25,000.

Apart from the above registrations there is a separate register for small contractors who can quote for jobs up to \$3,000. There are 67 such contractors registered up to the end of the year.

There are also 18 transport contractors with a total number of 125 trucks registered with the Department.

Competition among tenderers for various works has been keen throughout the year but this has not resulted in any appreciable drop in the cost of construction. However, closer supervision has resulted in an improvement in the standard of workmanship.

During the year 51 Contracts were let out in Brunei Town, amounting to \$1,281,349. This figure is considerably less than in 1955, but this was brought about by the fact that a number of large contracts were let late in 1955 and the actual work was carried out in 1956. The number of contracts let in 1956 was an increase of 3 on the 1955 number.

In the Kuala Belait District the position has also been very satisfactory and during the year contracts to the value of \$2,665,570 were let compared with \$1,732,681 in 1955.

Materials:

STONE—Stone supplies for road construction during 1956 have been maintained at a sufficient level in the Brunei end of the State, but there has been, and will be, a shortage in the Kuala Belait end until more, and better facilities for cartage can be arranged. In Brunei in the early part of the year, due to bad tidal conditions and failing reserve supplies, the delivery of uncrushed stone to the local crushers showed a marked decline, and there was a bad shortage of stone for all road works. The letting of additional contracts to suppliers from the Temburong and Batu Apoi areas was arranged in an effort to relieve the shortage, and also to build up a stockpile to be available for immediate use when required. Unfortunately these contracts did not give the necessary relief, and little, if any, stone was supplied. The local contractors were again approached, and a large supply was procured, and with the letting of fresh tenders on an improved basis, the stone supply position so far as Brunei is concerned, is more than satisfactory. At the end of the year quite a large surplus of crushed stone lay in stock-piles at various points along the roads, ready for immediate use as construction proceeds.

The Kuala Belait end supplies remain desperate. Little road work is in hand in this area, and the essential maintenance of roads is consequently being neglected.

The supply of crushed granite from Hong Kong, for use in the sealing and facing of roads has been kept up, and the condition in the Brunei end of the State is most satisfactory. At the end of the year about 17,000 tons were stock-piled at Berakas Road Depot, thus ensuring continuity of work in this area for the whole of 1957. In the Kuala Belait area, deliveries of crushed granite have been most unsatisfactory. The shortage will not be rectified until more reliable transport facilities can be arranged from either Brunei or Batu Gading, where ample supplies can be procured either by transshipment as in the case of Brunei, or by direct haulage of block stone from Batu Gading to stone crushers at Kuala Belait.

Berakas Quarry which is operated by the Public Works Department is still maintaining its output of sand/stone mixture and crushable stone. The sand/stone mixture has proved very

successful as a base course under road pavements and as a filling material while the crushable stone gives a reasonable quality aggregate for concrete works.

In 1956 the Quarry output was 175,209 cubic yards of sand/stone mixture and 5,691 cubic yards of hand picked stone for crushing purposes, compared with 90,883 cubic yards and 4,012 cubic yards respectively in 1955.

SAND—There are ample supplies of sand in the State, but the majority of it is much too fine for good quality concrete. However, mixing one part of stone dust from the crushers with six parts of sand greatly improves the quality.

TIMBER—Adequate supplies of both softwoods and hardwoods were readily available, but in almost all cases contractors were supplied with green timber from the sawmills. Seasoned timber has been practically unobtainable.

The importation of *belian* roofing shingles has practically ceased and more use is made of asbestos cement roofing materials which have proved more satisfactory and comparable in price.

In Kuala Belait it was found necessary to import 98 tons of Selangan Batu timber piles from Singapore for the sea wall there, as suitable piles were not available locally.

Land Reclamation:

In both Brunei and Kuala Belait there are many low lying areas which require filling before they are suitable as building sites. During 1956 a considerable amount of filling was done on such sites.

BRUNEI—Material for the town area was obtained from a number of sources in the vicinity and used principally on the sites of the three new plywood houses in Jalan Berakas where the general level was raised by 3 to 4 feet, the Medical Barracks in Jalan Sumbiling, the River Wall at Subok, the Tongkadeh Housing Area, the Town *Padang* and in various Quarters Compounds.

In the outlying districts considerable filling had to be carried out at the school sites at Sungei Hanching, Bangar, Puni and Sinaut. In these areas earthmoving machinery was not available and much of the filling had to be done by hand. This proved very expensive.

KUALA BELAIT—Work was continued on the scheme for sand filling the low lying township areas of Kuala Belait and Seria, and progress during 1956 was quite satisfactory. A total area of approximately 55 acres involving 267,697 cubic yards of fill was done at an average cost of \$7,066 per acre or \$1.46 per cubic yard.

Sand is removed from the beach by means of an elevating grader which loads into lorries which in turn unload on the site to be filled, where the sand is spread by bulldozer. By using the elevating grader rather than mechanical shovels as was done previously, and by increasing the size of the transport fleet, it has been possible to considerably increase output over that of previous years, and at the same time reduce the cost per cubic yard of the filling.

Government assisted filling of private lots, whereby the owner pays 10 per cent of the cost of the filling was continued and accounted for 34.4 per cent of the total area filled during the year. As Government work is given priority over this, and because much Government land required sand filling during 1956, there was a large backlog of applications for private sand filling at the end of the year. It is hoped to reduce this during 1957, but even so, a long delay in having private lots filled is inevitable.

With the opening up of new areas by sand filling of roads and private lots many new houses are being built, and new industries started.

The taking of sand from the beach both by Government and by the British Malayan Petroleum Company for their quarters and various installations, has aggravated the problem of coastal erosion and each year during the high tides in December and January the beach encroaches further. The B.M.P. Co. have solved this problem by building a wall along the beach in front of their installations. The Government section of the shore line has

in the past been unprotected, but tenders will shortly be called for the construction of a timber sheet pile wall. There is evidence that this may encourage the accumulation of sand along the beach, and render the use of a more expensive structure unnecessary. If this experiment is not successful the timber sheet piles will be used as the toe of an embankment of similar design to that used by the B.M.P. Co.

In the latter half of 1956, work was started on a reinforced concrete sheet pile river wall in order to stabilize the river bank in the town area, and also to reclaim a narrow strip of land along the river frontage.

P.W.D. Workshops:

There are two main P.W.D. Workshops in the State of Brunei, the first at Tasek, Brunei, which was opened by His Highness the Sultan on October 1st, 1955, and the other at Kuala Belait. These two workshops are responsible for the maintenance of all the heavy equipment and vehicles in the State. Approximately two thirds of the equipment is in the Brunei area, and one third in Kuala Belait.

During the year many improvements have been made at Tasek, and the Kuala Belait workshop is still under construction.

In January last year, chiefly due to the difficulty in obtaining spare parts and the lack of European supervision only about 50 per cent of the equipment was working. The maintenance of equipment was made very difficult due to three main causes:

1. Local conditions.
2. Disinterested and untrained operators.
3. Workshop inefficiency.

Item No. 1. Weather conditions, and the very abrasive nature of the sand cannot be overcome, the result being very heavy track wear on Bulldozers, chassis and body deterioration on vehicles and other equipment.

Average track changes take place at 800 hours, and the life of vehicles due to rusting and corrosion is three years.

Item No. 2. There are a few good operators but many are disinterested and although they could handle machines reasonably well if they wished, do not bother to do so unless under continual supervision. The lack of elementary knowledge of simple adjustments and servicing contributes to frequent and often unnecessary breakdowns.

On Diesel trucks bad driving causes gear box, clutch and transmission trouble and partly due to bad driving the maintenance on Diesel engined vehicles is higher than on petrol ones.

Item No. 3. There is probably some excuse for workshop inefficiency. The so-called fitters were in many cases untrained, and until recently there was very little European supervision. It seems most important that boys who come onto the workshop should be indentured, as apprentices, and that they should serve at least three years. It would probably be necessary to have some sort of night school so that boys could at least study elementary drawing, mathematics, and the reading of engineering instruments.

During the year the European Staff at Tasek has been increased and Mr. S. McCarthy who took a course at the Perkins and Bedford Works in England before joining the Works is responsible for the maintenance of vehicles. Mr. M. Stuart an Australian who had a considerable amount of experience on Road equipment in Australia is Foreman-in-Charge of heavy equipment. Mr. Crosby-Emery who was transferred to workshops in place of Mr. A. Jack remains as Officer-in-Charge, Workshops, and due to the co-operation of all concerned the availability of plant is now on the top side of 80 per cent.

At Kuala Belait Mr. G. Malcolm replaced Mr. Allison Wood, and he is ably assisted by Mr. W. Doughty who was transferred from Brunei Workshops. The workshops at Kuala Belait have improved considerably over the year, and provision is being made to purchase more machines to recondition equipment. During the year 12" Mitchell lathe and metal spraying equipment has been installed, and a craneshaft grinder, milling machine lathe and other plant will arrive shortly.

Mr. Malcolm is also responsible for the maintenance of machines in the Seria and *Sungei Liang* district. At *Sungei Liang* eighteen pieces of heavy equipment are working and most overhauls are done at the site with the aid of a mobile workshop.

During the past year the object of the Workshops was to get machines back on the road. This has been done but at a very high cost, but even so it has been cheaper than having expensive machines standing idle.

Next year the workshops aim to reduce costs. Figures are being taken of maintenance and running costs of all machines, and from then it will be possible to determine the economical life of the plant.

Two major items have contributed to the high costs during the year.

HEAVY EQUIPMENT—The brief life of tracks, Sprockets, rollers, etc. The life of these is only half of what it should be and the cost of a track change is very high. If these parts could be reconditioned cheaply and effectively a great deal of money would be saved.

VEHICLES—The rapid deterioration of wings, chassis and bodies due to salt water and sand. This can be overcome to a large extent by painting. It has been extremely difficult to get that. With a new shop and better equipment better results will be obtained.

Unallocated Stores:

The Unallocated Stores are kept in a most spacious Godown very suitably equipped with modern steel shelving. All items are stowed in particular sections and are readily available at a moment's notice. This store has been the envy of many a commercial visitor who has had reasons to be shown round. Total value of Stores passing through has amounted to approximately \$3,800,000.

State Supplies:

In April wholesalers in the State were allowed to apply for permits to import Rice. This did not relieve the Government from its liability to keep a reserve of Rice for use in the case of an emergency and the total value of Rice and Padi passing through Government Godowns has amounted to approximately \$4,300,000.

Buildings:

With the assistance of architects who have been given the charge of some of the larger building projects in the State, good progress was again made on Buildings in 1956.

BRUNEI—During 1956, all Government buildings in the area were maintained and kept in good repair. The repainting of quarters was continued and the use of gaily coloured paints has proved very popular and has made the town a much brighter place to live in. Many houses still remain to be decorated but it is hoped to catch up with the backlog in 1957.

Generally the progress made in the construction of the new buildings was good, although the Suez situation has delayed the arrival of some building materials from the United Kingdom. A number of rural schools and quarters were completed and occupied and the housing estate at Tongkadeh reached an advanced state of construction. The extension to the Nurses Hostel and the Medical Barracks in Jalan Sumbiling were completed and are now occupied. For a full list of buildings completed and under construction in 1956, in the Brunei, Muara, Tutong and Temburong Districts see Appendix "K".

The standard of workmanship in building has improved and with better supervision it is hoped to attain a standard comparable with that in bigger cities. Better fittings and finishes have been incorporated in all new buildings, thus improving both appearance and comfort.

Costs have remained unaltered, although competition for contracts has been very keen.

More local men are joining the ranks of tradesmen. If they work diligently they should be able to take over the work from tradesmen recruited from Hong Kong and Singapore in the very near future.

KUALA BELAIT—The building programme for 1956 was somewhat reduced from previous years, but with the larger staff available it was possible to complete a bigger percentage of the programme than in previous years.

Of the \$2,724,900 allocated for building work under P.W.D. in Kuala Belait, \$1,173,510 worth of works were completed and progress payments amounting to \$351,631 were made on work still in progress at the end of the year. No work at all was done on proposals amounting to \$855,000 because mostly these proposals were not required in 1956, and others were cancelled entirely.

For details of buildings completed during the year, and buildings under construction at the end of the year in the Kuala Belait-Seria area, see Appendix "L".

SURVEY DEPARTMENT

Organisation and Staff:

The Survey Department is responsible for all surveys of State land for alienation, revision surveys and the proper recording of same on cadastral plans. The office of the State Surveyor is in Brunei Town, and at the end of the year with the appointment of a second Assistant Surveyor, it was possible to have Assistant Surveyors to superintend the field work in the Belait District and Brunei-Muara District respectively.

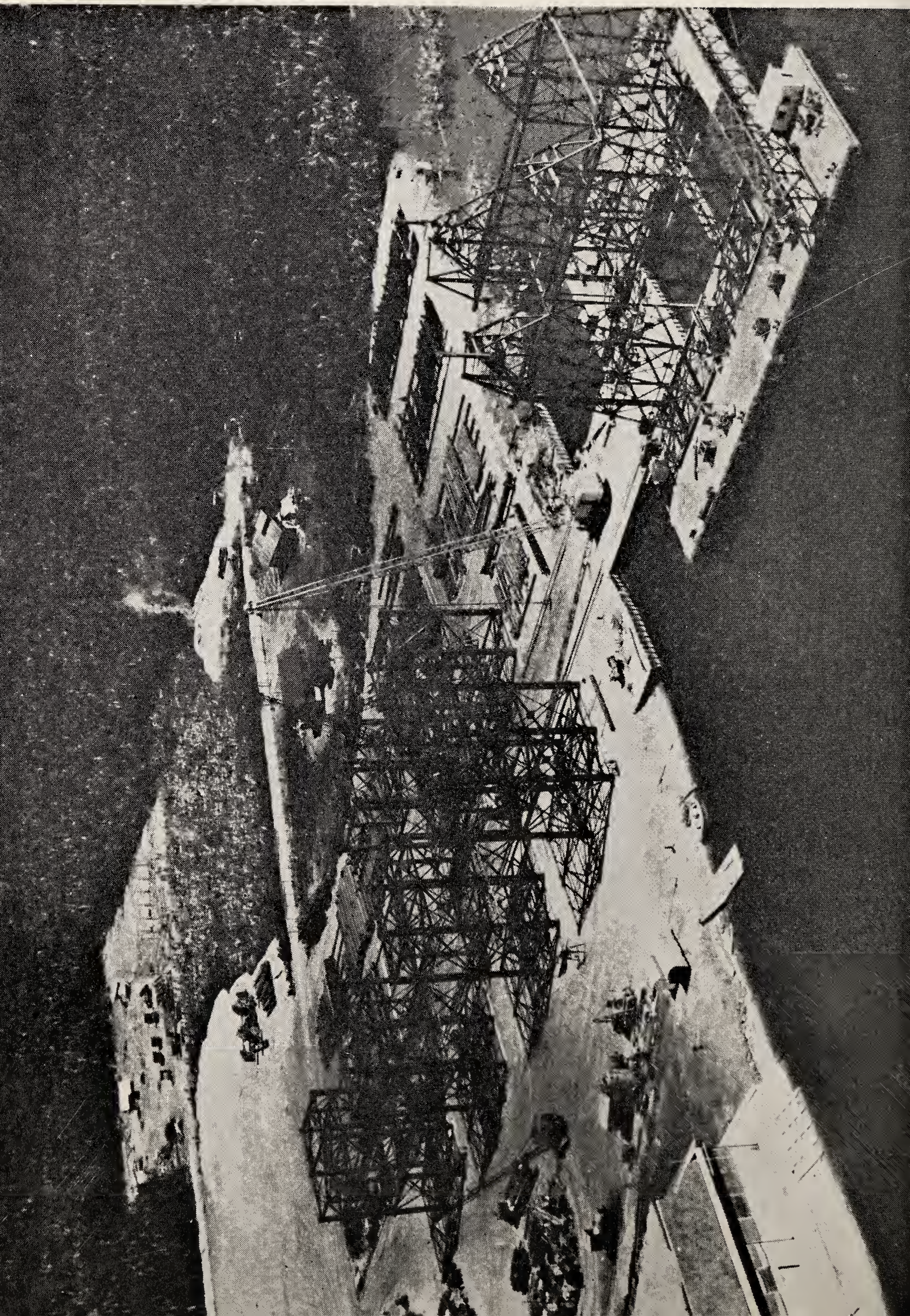
The post of State Surveyor is held by a Senior Service Officer seconded from Sarawak. One Senior Technical Assistant holding the post of Chief Draughtsman is also seconded from Sarawak. The Assistant Surveyors are on contract to the Brunei Government.

There are a considerable number of vacancies for both establishment and non-establishment posts. This shortage of staff especially in the Junior Technical Assistant grade is a big handicap. Unfortunately there does not appear at present to be

Junior Service
Flats, Brunei.



Marine Construc-
tion Yard and
Wharf, Kuala
Belait.



personnel in the State with the necessary educational qualification to fill these posts. Attempts were made to recruit officers on contract from Malaya and Singapore but with no real success. The recruitment of untrained personnel, who seem to be the only people available, on contract for a technical department such as this is very unsatisfactory. By the time they have been trained, done a certain amount of practical work and become generally useful, their contract has expired, they leave and most probably never return. The department is then faced with training new staff all over again. The shortage of Junior Technical Subordinates has not greatly hindered the workings of the department for these vacancies, mostly for field people such as chainmen, have been overcome by using daily paid personnel. These daily paid personnel who are mostly of very low educational standard, and not strictly eligible for posts in the Junior Technical Subordinate grade, have done a very good job. So much so that during the year 4 have been promoted on their practical ability, and more will be promoted in the year to come.

The Director of Land and Survey Department, Sarawak made available to this department, Mr. Lai Soon a Senior Computer, to train 2 Junior Technical Assistants as computers, and at the same time generally ensure that our system of recording was sound.

The Director of Land and Survey Department, Sarawak paid an official visit to Brunei from the 29th October, 1956, till 3rd November, 1956.

Field Surveys:

At the beginning of the year 2,515 new applications for land were awaiting survey. During the year 1,143 new applications for land were received from the various land offices for survey. At the close of the year surveys had been completed of 2,046 lots; 165 applications for land had been cancelled for various reasons, leaving a balance of 1,447 applications. In all cases land application surveys went hand in hand with revision surveys, and the end of the year saw a further 1,158 old lots resurveyed. Also 57 mutation surveys and 1,407 lots of miscellaneous surveys were completed. This gave a total of 141,066 chains, (1,763.3 miles) of prismatic compass surveys at an average field cost of \$1.80 per chain.

Theodolite control surveys of 1,960 chains (24.5 miles) of standard traverse at a cost of \$3.09 per chain; 2,295 chains (28.7 miles) of first class traverse at a cost of \$3.58 per chain, 20,310 chains (253.9 miles) of second class traverse at a cost of \$3.60 per chain, and 509 chains of theodolite town surveys at a cost of \$3.75 per chain were also completed.

This brings the total of lots surveyed since the Department was formed in July 1952 to 13,224. Also 53,652 chains (670.7 miles) of theodolite surveys were completed. These figures show that without any large increase of staff the output has been considerably stepped up.

At the end of 1955 the investigation report had been received from the consulting engineers engaged by the Brunei Government, on the possibility of a drainage and irrigation scheme for rice cultivation in the Mulaut-Kilanas area as far south as the border of Brunei with Sarawak. It was decided to go ahead with the layout of the drain and irrigation reserves as outlined by them for the northern part of the scheme. It was felt even if the whole scheme did not go through it was desirable to have this northern area, over a good portion of which rice was being grown now, laid out in a regular manner. The consultants were given a contract to undertake the necessary surveys, for the layout of road, drain, irrigation canal reserves, and layout of regular sized lots for future settlement when the scheme is brought into operation.

It has been mentioned before that a portion of this area had already been alienated, and more was under new application. The original alienation and new applications in this area had not followed any set plan, so that with the laying out of proper drainage and irrigation, a reshuffle of the lots would be necessary to fit in with the scheme. The State Surveyor was therefore gazetted as Settlement Officer, and to him fell the task of explaining Government's intentions. At first it was not an easy task to convince the farmers that a reshuffle of lots would be to their advantage, but after numerous meetings with them, agreement was reached.

At the end of this year State Council gave approval to the expenditure of funds for the construction of drains, irrigation ditches, and necessary water controls, over 800 acres, which is

now known as the Mulaut Kilanas (Pilot) Irrigation Scheme. Work was started immediately by the Consultants in order that everything would be completed by September, 1957. The State Surveyor, as Settlement Officer will be responsible for this project.

Charting and Computing:

The top priority task of the department is to produce 4 chain final cadastral sheets covering all the alienated land in the State and all the work is geared to this task. However there are so many outstanding new applications for land, that must be dealt with, to satisfy the public demand for title to the land applied for, that charting has had to continue on the old Land Office plans. Also in order that a much clearer picture than that provided by the Land Office plans, could be obtained to enable controls to be planned, and to see the extent of present alienation, it has been necessary to continue the preparation of preliminary 4 chain sheet based on the co-ordinate system of the final 4 chain sheets. This means there is a complete duplication of all charting work, which unfortunately cannot be avoided, with the result that the output of the drawing office appears to be very low.

Throughout the year two draughtsmen have been employed solely on charting of lots for acquisition of road reserves, which has had top priority. Also a number of mutation surveys have been given priority. The foregoing work has had to be done by the more senior and experienced draughtsmen and this has meant the checking of charting has fallen into arrears. One very encouraging sign however is that the drawing office has had no resignations of staff, which means if this record can be maintained, through experience and practice, the standard of work and the output will be raised. This has already been shown by the fact that two of the more junior drawing office staff have been put on to final charting and are proving competent at this work.

The lack of up to date topographical maps of Brunei has been a handicap to many development projects and departments have turned to the Survey Department to supply these. This department has however been hard pressed to keep the cadastral surveys going and although an attempt was made to produce a composite up to date map on the scale of 3 miles to 1 inch to

be reduced to 4 miles to 1 inch for publication, this had to be dropped for more important work. The only maps we have been able to supply being photostat copies of maps produced before and during the second world war.

General:

During the year in order to obtain information for future Settlement Operations it was decided that a soil survey should be carried out of a selected area. Specialists for this work were obtained through the Colombo Plan, and a party of two Australians from the Commonwealth Scientific and Industrial Research Organisation, Division of Soils, arrived in Brunei in June. Their field work was completed in 3 months, but to date their full report is not available. Throughout their stay this party was attached to the survey department, and assisting them were 6 rentis cutting parties with Chainman capable of compass traversing. These parties cut and surveyed 8,572 chains (107 miles) of rentis, which was plotted on a scale of 10 chains to an inch in the drawing office, and computations for rough heights were made through these rentis.

An Agriculture Field Assistant from the Agriculture Department was attached to this Soil Survey party, and at the end of the specialist stay in Brunei it was felt he had gained sufficient knowledge to carry out soil investigations by himself in other areas. This man was therefore seconded to the Survey Department and carried out soil investigations in the Lamunin areas of the Tutong District.

During the year the department has also assisted Consultants, under the direct control of the Commissioner of Development, engaged on water supply and sewerage disposal investigations, by the supply of Chainmen, labour and daily routine administration.

The Admiralty Survey Ship, H.M.S. Dampier was engaged during the year on hydrographic surveys in Brunei Bay and Muara Harbour, and this department was called upon to supply trigonometrical data for this survey. Five new tertiary triangulation points were established in the area, all of which subsequently proved very useful in the task.

It is desired to record that all staff have worked diligently and with commendable loyalty during the year.

FIELD SURVEY RETURNS 1956.

Part I. *Applications for Land (Surveyed)*

<i>District</i>	<i>Outstand- ing L/As. 1.1.56</i>	<i>Received during 1956</i>	<i>Surveyed during 1956</i>	<i>Outstand- ing 30.12.56</i>
Brunei and Muara	} 2515	178	1261	772
Tutong		560	534	504
Belaït		323	220	25
Temburong		82	31	146
State Totals	2515	1143	2046	1447

NOTE: 165 returned to offices of issue.

Part II. *Miscellaneous Surveys.*

<i>District</i>	<i>Unsurveyed at end of Previous year</i>	<i>Received during year</i>	<i>Surveyed during year</i>	<i>Unsurveyed at end of year</i>
Brunei and Muara	—	2	2	—
Tutong	—	—	—	—
Belaït	—	13	13	—
Temburong	—	—	—	—
Total	—	15	15	—

Part III. *Applications for Mutation.*

<i>District</i>	<i>Unsurveyed at end of Previous year</i>	<i>Received during year</i>	<i>Surveyed during year</i>	<i>Unsurveyed at end of year</i>
Brunei and Muara	—	19	19	—
Tutong	—	5	5	—
Belaït	—	6	6	—
Temburong	—	—	—	—
Total	—	30	30	—

Part IV. *Revision Surveys.*

<i>District</i>	<i>Surveyed during year</i>
Brunei and Muara	466
Tutong	301
Belait	170
Temburong	221
Total	1158

MISCELLANEOUS DRAFTING, MAP REPRODUCTION
AND PHOTOSTAT SECTION, ETC.

FIELD SURVEYS COSTS 1956.

(Note : Costs are exclusive of supervision and cost of boundary marks.)

<i>Nature of Survey</i>	<i>Chains</i>	<i>Lots</i>	<i>Cost \$</i>	<i>Cost per lot \$</i>	<i>Cost per chain \$</i>
(a) <i>Theodolite</i>					
(i) Standard Traverse	1,960		6,059.44		3.09
(ii) First Class Control	2,295		8,212.51		3.58
(iii) Second Class Control	20,310		73,050.21		3.60
(iv) Town layouts and Mutations	509		1,906.65		3.75
(v) Re-survey, queries and Miscellaneous			1,763.55		
Total (a)	25,074		90,992.36		
(b) <i>Prismatic Compass</i>					
(i) Alienated : Original (includes country land, town land, reserves and mutations, and industrial, residential and <i>kampong</i> lots)	81,770	2,103	162,357.92	77.20	2.00
(ii) Alienated : Revision	42,467	1,158	89,693.49	77.45	2.11
(iii) Miscellaneous cadastral sur- veys and inspections (includes queries, cus- tomary rights surveys and land utilisation sur- veys)	16,829	149	28,439.15	53.74	1.69
Total (b)	141,066	3,410	\$280,490.56		
Total (a) and (b)	166,140	3,410	\$371,482.92		

(a) *Miscellaneous Drawing Office Work.*

Cadastral Sheets Drawn : —

31 Final 4 Chain Sheets.

7 Final 16 Chain Sheets.

96 Preliminary 4 Chain Sheets (Tracing Cloth).

Miscellaneous Plans Drawn:—

815 Miscellaneous sketches for documents (EDRs.).

1 Municipal Boundaries Maps.

10 Soil Survey plans.

3 Miscellaneous Drawings.

Other Office Work carried out:—

29 Theodolite Survey Papers.

190 Job Sheets compiled and prepared.

103 Field Information Tracings (Including Queries).

13 Other Miscellaneous Ink Tracings.

42 Other Miscellaneous Pencil Tracings.

124 Photostats for sale.

2,211 Lots for which areas were taken.

20,120 Hand stamping impressions.

69 Lots completed in ink on Final Sheets.

Photostats prepared included:—

3,842 Miscellaneous photostats of various sizes.

b) *Photostat Section.*

	1956	1955
Total linear feet of paper, 18" wide, exposed	\$14,870.00	\$4,934.00
Total cost (including materials, wages and depreciation at 12 per cent per annum	\$ 9,195.24	\$3,953.70
Average cost per linear foot in cents	61½ cts.	80 cts.

WATER SUPPLY

Brunei Town Area:

CONSUMPTION—The maximum daily consumption during the year was 968,000 gallons on the 6th and 22nd February and 24th April, and the minimum was 507,000 gallons on 25th

November. The following table indicates the rapid increase in daily demand during recent years.

<i>Year</i>	<i>Average daily consumption</i>
1952	239,670 gallons
1953	288,890 „
1954	355,600 „
1955	248,035 „
1956	770,382 „

GENERAL—The new treatment and pumping station at Tasek was put into full scale operation on 14th January, 1956, after satisfactory results were obtained from test runs on the filters. Throughout the remainder of the year Brunei Town was supplied with filtered and chlorinated water of high quality.

One effect of the increased pressure in the mains was a sudden sharp rise in consumption from an average of 428,000 gallons/day prior to commencement of the new scheme to 850,500 gallons/day in February, 1956. This figure has decreased steadily to an average daily consumption for December, 1956 of 662,900 gallons, and the reduction has been mainly due to the progressive fixing of meters to consumer's supplies. At time of writing there are about 100 unmetered supplies connected to the town supply, but it is expected that these will be metered before the end of January, 1957.

A further reduction in consumption may be expected when the new rates of charges for water come to force, as the inevitable increase on the present charge of 25 cents per thousand gallons will considerably reduce the amount of water. However development of new housing sites at Tongkadeh, and at Kumbang Pasang are nearing completion, and will more than balance the reduction in consumption due to higher charges.

A report on the subject of water charges throughout the State has been prepared, containing a schedule of recommended rates of charges, and it is hoped, that approval will be given to the recommended rates early in the new year.

A water detection scheme for the Brunei Town distribution mains is being prepared, and when finalised regular waste detection surveys will be carried out at night-time to eliminate waste through defective fittings, leaking mains and unauthorised services.

QUALITY OF WATER—The quality of water from the Tasek Works is very satisfactory, and tests are carried out on the filtered water at two hourly intervals throughout the day to ensure that the purity of the supply is maintained at all times. A small stirring apparatus has been made by the workshops for the purpose of carrying out flocculation tests on the new water and this will enable the Foreman of the Filters to keep a more rigid control of the time and alum dosage rates.

Daily water samples are now taken from filter plants on the distribution mains for testing in the Hospital laboratory, and the results so far show that the water is free from harmful bacteria, with the exception of samples taken from the uncovered/Kumbang Pasang service reservoir, which indicates slight pollution.

A permanent mosquito proof roof is now being constructed over this tank and when completed the pollution will be eliminated. For the same reason the small concrete tank near the *Istana* Staff quarters was covered in October.

DISTRIBUTION—The steady growth of the “land” population and development of hitherto undeveloped areas is reflected in the length of new mains that were laid during the year, and in the numbers of new connections that were made. The relevant statistics are given in the following tables:—

(1)	Size of Mains	Brunei	Muara	Length of feet				Total	Remarks
				Kg. Kapok	Tutong	Tem- burong	Puni		
8"	Steel	1,405	—	—	—	—	—	1,405	
8"	Steel								
	Iron	337	—	—	—	—	—	337	
8"	A.C.	163	—	—	—	—	—	163	
6"	Steel	748	—	—	—	—	—	748	
6"	Cast								
	Iron	466	—	—	—	—	—	466	
6"	A.C.	3,481	—	—	—	—	—	3,481	
4"	Galvd.	1,175	—	—	—	—	40	1,215	
4"	A.C.	6,703	—	100	—	—	1,070	7,873	
3"	Galvd.	889	—	80	988	—	450	2,407	
3"	A.C.	8,699	—	1,020	—	—	—	9,719	
2"	Galvd.	2,637	—	20	1,905	125	600	5,287	
2"	A.C.	—	—	2,480	—	—	—	2,480	
1½"	Galvd.	1,337	—	—	2,061	240	—	3,638	
1"	Galvd.	1,640	773	—	—	—	80	2,493	
¾"	Galvd.	648	—	—	—	—	—	648	

(2) Number of new connections:—

	Government Quarters and Buildings	Private Consumers	Temporary connections for constructions	Stand Pipes
Brunei Town	13	81	10	7
Kilanas	—	1	—	—
Tutong	7	—	—	—
Muara	2	—	—	2
Temburong (Bangar)	—	—	1	—
Puni	4	—	—	4
Total	26	82	11	13

Other work carried out during the year included the construction of 3 small reinforced concrete dams at *Sungei Menjalin*, *Sungei Siamas* and *Puni* (Temburong) to provide piped supplies in these areas. Work is in progress at Mile 5½ Tutong Road and *Kampong Puduk* where new schemes will be operating in early 1957.

Two steel Storage tanks were erected, one at Tutong (size 12' x 16' x 8') and one at Bangar (size 12' x 8' x 4').

Booster pumps to improve the supplies were installed at Muara (1) and Tutong (2).

A weir has been fixed at Tasek Dam by the Consultants, with the co-operation of P.W.D., and readings from the weir will enable proper correlation of rainfall and runoff readings for the *Sungei Tasek*.

1957 Programme:

The 1957 programme includes for the provision of water supplies to a number of areas where there is at present no supply, and improvement of existing supplies, that are unable to meet present demand.

The preliminary surveys have already been carried out for most of these schemes, and design calculations are well advanced for the Tutong and Bangar Supplies. Investigation of the problem of providing a piped supply to Kampong Ayer is under way, and this supply will require the laying of a flexible pipeline on the bed of the Brunei River.

The present constructed outlet from the Tasek Dam will be enlarged early in 1957, and this will increase the output from the pumping station.

Consultants:

The survey team from Messrs. Binnie, Deacon and Gourlay arrived in Brunei on 8th June, 1956 and are proceeding with the investigation of water resources in Brunei Town and Muara areas. The Consultants' original terms of reference have been amended by mutual consent, and it is now agreed that the P.W.D. will be

responsible for the planning and construction of all distribution mains, while Messrs. Binnie, Deacon and Gourlay will put forward recommendations and estimates for the construction of dams, treatment works, pumping stations and trunk mains.

Kuala Belait:

For many years now both Kuala Belait and Seria have experienced much trouble in obtaining adequate water supply. A scheme was put in hand during 1954 whereby Government was to be supplied by the British Malayan Petroleum Company Ltd., with filtered treated water in Seria, which would be pumped to high level tanks in both Kuala Belait and Seria and then distributed through various size mains to the consumers. Because of the inability of the original contractors to complete the work, new tenders were called early in 1956 but no satisfactory tender was received.

In order to prevent further delay, the Public Works Department took over from the consultants for the scheme, and appointed a contractor to complete the 9-inch asbestos cement pumping main from Seria to Kuala Belait. Cleaning operation is now being carried out to the low level tank in Seria, the 9-inch main and then later to the high level tank in Kuala Belait. It is hoped to complete this operation in December and water will then be supplied to Kuala Belait through the old distribution system for 24 hours per day instead of one hour per day as was done previously. In about July it was possible to supply Seria in a similar manner, so that the water supply position although most unsatisfactory did show a slight improvement, over the previous year.

Tenders have been invited for the completion of the new reticulation mains in both Kuala Belait and Seria which when completed will supply water to practically the whole of both these towns.

Apart from a small supply to the road construction camp at *Sungei Liang* there are no other Government piped water supplies in the Belait District.

GAS SUPPLY

The supply of gas in the State is confined to the Seria and Kuala Belait areas where waste gas from the oilfields is utilized. Ample supplies of gas are available in these areas. Details were worked out for a new supply system for Kuala Belait and Seria, and many of the materials were ordered but no start was made on the laying of mains. An improvement to the existing Kuala Belait system was made by means of another connection from the British Malayan Petroleum Company's high pressure main into the Government reticulation main. Apart from isolated areas where no gas is available, the present reticulation system does cope reasonably well with demand, although there is very little room for increased demand and in some cases the pressure in the mains is higher than is desirable. The new scheme when completed will overcome these defects.

ELECTRICAL DEPARTMENT

GENERAL REVIEW

The year 1956 has been one of consolidation and development of load. With the change from shortage to sufficiency in generating plant came the need to encourage the growth of demand, and with this in view, the Department introduced a new Tariff on 1st February, 1956, bringing the rate from 30 cents to 25 cents per K.W.H. for lighting, and 10 cents to 8 cents for power.

3,418,903 units were generated and purchased for distribution to Electrical Department's Consumers as compared with 2,095,677 units for the preceding year, an increase of 63.1 percent.

This very rapid rate of expansion was largely due to relaxation of restrictions following commissioning of new generating plant. Further expansion will, it is thought, be somewhat less rapid, but nevertheless indications are that demand will continue to double approximately every 6 to 7 years. Plans to meet this anticipated growth of demand include the following:—

(a) The installation of two additional oil generating sets of 900 K.W. each in the Brunei Town Power Station is under consideration.

(b) Purchase of bulk supplies of 800 K.W. for Kuala Belait and Seria from the British Malayan Petroleum Company, Limited, has been arranged.

The sales of electricity, both lighting and power showed noteworthy increase. Sales totalled 3,071,073 units, an increase of 61.5 per cent over the preceding year when sales totalled 1,902,077 units.

The number of consumers connected to the Department's system totalled 2,666 at 31st December, 1956, compared with 1,975 at 31st December, 1955. This represents an increase of 35 percent.

Gross income for the year totalled \$516,367 (\$408,538 in 1955) and gross operating expenditure \$425,286 (\$297,309 in 1955) leaving a balance of \$91,082 to Net-Revenue Account. The total contribution towards interest and depreciation charges amounted to \$170,425 and after taking into account of expenditure and contribution charges the Department had incurred a deficit of \$74,568 for the year.

Despite the substantial increase in the sale of electricity the income for the year had dropped considerably. This decline was occasioned by the introduction during the year of a new Tariff as mentioned earlier.

The Profit and Loss account is shown in Appendix "N".

NEW PROJECTS

A public supply of electricity at Tutong was commenced in August, 1956.

The work on the electrification of Bangar has been well advanced and it is expected that the plant would be put in commission by February, 1957.

STORES

The year 1956 started with a carry-forward stock to the value of \$176,497. Total purchases and issues during the year amounted to \$138,581 and \$196,296 respectively. The closing balance at the end of December, 1956, was \$118,782.

There is also an allocated stores account and the total purchase under this account came to \$533,338.

ACCIDENT

No accident occurred during the year.

GOVERNMENT QUARTERS AND BUILDINGS

The Electrical Department undertakes the work of maintaining the electrical installations, installation of electrical wiring in new buildings and the replacement of old electrical wiring in Government Quarters and Buildings.

Service lines exceeding the length provided free are also erected and the cost recovered from consumers.

HIRE OF APPLIANCES

During the past 21 years the Electrical Department engaged in the hire of domestic appliances and during the current year it was decided to discontinue, as far as possible, further hiring of domestic appliances. In place of the hiring facilities the Electrical Department has introduced a Scheme whereby consumers can purchase appliances on hire purchase terms.

The entire staff of the Electrical Department has had a very busy year in maintaining the continuity of the electricity supply and achieved commendable progress in the various Development projects, in spite of many difficulties arising in the course of their duty. The State Electrical Engineer wishes to put on record his appreciation of the entire staff who have so loyally and conscientiously responded to the call of duty.

Mr. E. Rajaratnam A.I.E.E. (England) substantive holder continued to officiate as State Electrical Engineer.

BRUNEI TOWN

The operation and maintenance of the Power Station in Brunei Town continued satisfactorily without a single major breakdown taking place. With the installation of the second 280 K.W. Ruston and Hornsby oil generating set in January of this year the capacity of the station rose to 1,010 K.W. It is

expected that by 1958, the maximum system demand will have reached the safe limit of the installed plant capacity. Accordingly plans are being drawn out for carrying out extensions to the existing power station and arrangements made to order new and bigger generating plant.

In the Power Station the second ring main was put in commission in the middle of May of the year under review.

The commissioning of another four indoor Substations, the erection and installation of one semi-permanent substation at the Hot Mix Plant, the further erection and improvement of overhead distribution lines and the laying of L.T. underground cables in the Town area, made it possible to remove what little restrictions remained on the use of electricity. All demand for the supply of electricity, except those from the *Kampong Ayer*, were met. The increase in demand of electricity is reflected in the total number of units generated and the maximum load recorded during the year under review.

The total units generated during the year was 2,196,555 an increase of 948,610 units or 76.01 per cent on the previous year. The maximum load recorded during the year was 585 K.W. and the load factor was 42.7 per cent.

Distribution:

(a) *Underground cables.* The work of laying cables, started during the previous year, was continued.

During the year under review three major cable breakdowns occurred. Two were on the Berakas Road and the third on the Tutong Road near Clifford Bridge. Of the two on Berakas Road one was caused by a short the cause of which was unknown while the other was due to damage caused to the cable in the course of piling operations carried out in the vicinity. The fault along Tutong Road was due to the cable being damaged in the course of filling operations carried on the road by the Roads Section of Public Works Department.

(b) *Substations.* Construction of substations put in hand by the Public Works Department last year was continued and up to the close of the year under review construction of the remaining three substations was completed, making a total of ten substations completed up to date.

In addition to the above one semi-permanent substation was erected for the Roads Section on the site of the New Hot Mix Plant where new Machinery was installed.

Up to the close of the year five substations were put in commission, while works on the sixth is in hand and is expected to be put in commission shortly.

(c) *L.T. distribution overhead mains.* During the year under review further extensions and improvements to existing mains were carried out.

Normal routine maintenance of and minor repairs to overhead lines were carried out during the year.

Consumers:

The total number of consumers connected at the end of the year was 1,362 showing an increase of 271 over the previous year. In Government Quarters and Buildings 1,385 new points were wired and 81 points rewired.

Meters and Protection:

The total number of Meters installed at the end of the year was 1,528 as compared with 1,233 in 1955. Dispute tests were carried out on 2 meters during the year and in both cases the deposits were forfeited.

The protection system operated satisfactorily.

Public Lighting:

In view of the fact that new and up to date street lights are being installed shortly it was thought advisable not to increase the present number connected to the system. Therefore the total number of street lights connected on the system at the end of the year remained at 70.

Routine inspection and relamping were maintained throughout the year.

Domestic Appliances:

Details of domestic apparatus on hire at the end of the year are as follows:—

<i>Appliances</i>	<i>1955</i>	<i>1956</i>
Cookers	27	51
Water Heaters	27	50
Ceiling Fans	32	39
Table Fans	52	47
Refrigerators	166	215
Air-Conditioners	2	4
Freezers	2	2
Washing Machines	6	18
Floor Polishers	—	1

Statistics:

	<i>1954</i>	<i>1955</i>	<i>1956</i>
Lighting Consumers	653	792	970
Power Consumers	225	299	392
Total Consumers	<u>878</u>	<u>1,091</u>	<u>1,362</u>

	<i>1955</i>	<i>1956</i>
Total units generated	1,247,945	2,196,555
Total units sold	1,091,424	1,926,896
Total units used in works	18,224	33,600
Total magnetising units	39,925	196,087
Total units unaccounted for	7.9%	1.4%
Number of gallons of fuel used	87,851	147,709
*B.Th.Us per unit generated	12,350	11,200
Installed Plant capacity (K.Ws.)	730	1,010
Maximum demand	388	585
Load factor percentage	34.7	42.7

* B.Th.Us per pound of fuel are taken as 19,500.

KUALA BELAIT

The operation and maintenance of the Power Station continued satisfactorily without any single major breakdown.

As it was intended to purchase bulk supply from the British Malayan Petroleum Company, Ltd., no new generating Plant was installed. Consequently the installed Plant capacity remained at 257 K.W.

The load connected during the year under review had risen to such an extent that the maximum demand exceeded the effective Plant capacity to a level that all four generating sets had to be run during the peak loads. Restrictions had, therefore, been introduced during the second half of the year and no further connections given.

To receive the bulk supply from the British Malayan Petroleum Company, Ltd., the work of erecting a network of Substations had been put in hand. Up to the close of the year four indoor and three outdoor substations had been completed.

With the exception of the L.T. Switchgear all other electrical installations had been erected and completed. The L.T. Switchgear is expected to arrive shortly and it is anticipated the first of the substation would be put into commission before the end of January, 1957. It is further expected to have all the other substations functioning and the whole of Kuala Belait's electricity supply switched over to the British Malayan Petroleum Company, Limited's network by the end of February. The present Power Station would then be shut down and retained for two years as a stand-by unit.

One 100 K.V.A. outdoor substation was erected in the Panaga Field Force area and commissioned in November and a 24 hour supply introduced in place of a fourteen hour supply hitherto in force. The 20 K.W. generating set used previously was retained as a stand-by set in case of emergency.

The total units generated and purchased during the year under review was 766,832 showing an increase of 36.13 per cent over the previous year. The maximum load recorded was 242 K.W. and the load factor was 34.5 per cent.

Distribution:

(a) *Underground cables.* The work of laying the cables was started during the middle of the year and good progress had been made up to the close of the year.

(b) *L.T. overhead.* Extensions and improvements to existing overhead mains were carried out during the year.

The entire overhead system was regularly inspected and maintained in effective condition throughout the year.

Consumers:

The total number of consumers connected at the end of the year was 695 showing an increase of 86 over the previous year. In Government Quarters and Buildings 692 points were wired and 117 points rewired.

Meters and Protection:

The total number of Meters installed during the year was 86. The protection system operated satisfactorily.

No dispute tests were carried out during the year under review.

Public Lighting:

The number of street lights connected on the system remained at 58. Routine inspection and relamping were carried out throughout the year.

Domestic Appliances:

Details of domestic apparatus on hire at the end of the year are as follows:—

	1955	1956
Table Fans	3	3
Refrigerators	50	57
Air-Conditioners	6	5

Statistics:

	1955	1956
Lighting Consumers	427	471
Power Consumers	181	224
Total Consumers	<u>608</u>	<u>695</u>

	1955	1956
Total units generated	546,477	729,812
Total units purchased	17,347	37,020
Total units sold	533,069	706,718
Total units used in works	6,546	7,260
Total units unaccounted for	—	6.89%
Number of gallons of fuel used	47,806½	60,536
Installed Plant capacity in K.W.	257	257
Maximum demand in K.W.	—	242
Load factor percentage	—	34.46

SERIA

Seria continued to get bulk supply from the British Malayan Petroleum Company, Limited's system without any major interruption on the supply system.

During the year under review the peak load has been steadily building up and it is anticipated that the present 250 K.V.A. would be fully loaded up as soon as the new water pump house starts functioning. A site has been fixed and arrangements are being made to erect a new 300 K.V.A. substation. Restriction, however, may have to be introduced on power consumers during the peak periods until the substation is finally put into commission.

The total units purchased during the year was 441,855 showing an increase of 55.63 per cent over the previous year. The maximum load recorded was 198 K.W.

Distribution:

L.T. overhead mains. Extensions and improvements to existing overhead mains were carried out during the year.

The entire overhead system was regularly inspected and maintained in efficient condition throughout the year.

Consumers:

The total number of consumers connected at the end of the year was 495 showing an increase of 219 over the previous year. In Government Quarters and Buildings 189 points were wired.

Meters and Protection:

The total number of Meters installed during the year was 219 and the protection system operated satisfactorily.

Two dispute tests were carried out and in both cases the deposit money was forfeited.

Public Lighting:

The number of street lights connected to the system remained at four. Routine inspection and relamping were carried out throughout the year.

Domestic Appliances:

Details of domestic apparatus on hire at the end of the year are as follows:—

	1955	1956
Refrigerators	4	10

Statistics:

	1954	1955	1956
Lighting Consumers	107	198	340
Power Consumers	36	78	155
Total Consumers	143	276	495

	1955	1956
Total units generated	67,612	—
Total units purchased	216,296	441,855
Total units sold	277,584	425,509
Total units used in works	2,215	743
Total units unaccounted for	—	3.68%
Maximum demand in K.W.	—	198
Load factor percentage	—	25.5

TUTONG

Power Station:

The work on the electrification of Tutong Town, started last year, was continued during the year under review, pipe and cable trenches were cut and made up. A single panel switchboard complete with an oil circuit breaker was erected and wired up. The foundations for the engines having been laid out the previous year one 70 K.W. set was mounted and erected in the first instance. Running tests were carried out and the set finally put into commission and put on load on the 1st of August. By late October the second 70 K.W. set was erected. Due to lack of a switchboard panel a suitable temporary arrangement was made to take up this set which was finally put on load on the 26th of October and the two sets run alternately. A switchboard panel is on order and as soon as it arrives a permanent switchboard will be erected.

With the erection of the second 70 K.W. set the capacity of the station at the close of the year was 140 K.W.

The total units generated during the year under review was 13,661 units. The maximum load recorded for the period was 45 K.W. and the load factor was 33.1 per cent.

Distribution:

(a) *Substations.* Two outdoor substations have been erected during the year under review. Of the two, one is a step up substation at the Power Station end with 1-100 K.V.A. Transformer. The other with 1-50 K.V.A. Transformer is a step down substation for the Town proper area.

(b) *Overhead mains.* The erection of poles for both High and Low Tension mains was further continued during the year under review and up to close of the year 1-34 ft., 22-28 ft. and 26-25 ft. poles were erected. Stays and struts, wherever necessary, were planted and erected and all poles including those erected the previous year were painted.

Up to the close of the year under review 608 yards of H.T. 2.2 K.V. and 2,855 yards of L.T. 410 volts mains were run.

Lighting arresters for both H.T. and L.T. lines were installed wherever necessary and poles earthed at regular intervals.

Further erection of both H.T. and L.T. distribution mains is in progress.

Consumers:

The total number of consumers connected to the system at the end of the year was 92 with a total connected load of 43.68 K.W. In Government Quarters and Buildings 167 new points were wired.

The wiring of private houses and buildings by private Contractors also progresses satisfactorily and up to the close of the year a total of another 160 points had been wired.

Meters and Protection:

The total number of meters installed at the end of the year was 92. No dispute tests were carried out during the year.

The protection system operated satisfactorily.

Public Lighting:

Up to the close of the year the total number of street lights connected to the system was five. More street lights are expected to be connected during the coming year. All street lights connected are mercury blended lamps.

Routine inspections and relamping were maintained during the year.

Statistics:

Lighting Consumers	92
Power Consumers	—
	<hr/>
Total Consumers	92
	<hr/>

Total units generated	13,661
Total units sold	11,914
Total units used in works	948
Total units unaccounted for	5.8%
Number of gallons of fuel used	2,279
Installed plant capacity (K.W.)	140
Maximum demand (K.W.)	45
Load factor per centage	33.1

BANGAR - TEMBURONG

The Bangar electrification Scheme was first put into operation in February, 1956, when a preliminary survey of sites for the proposed Power Station was carried out. Negotiations were started with the District Officer, Bangar, and the Assistant Resident and a plot of land situated approximately a half mile from the centre of Bangar Town was acquired. The site acquired was cleared of jungle growth, filled with earth and properly levelled off.

Power Station:

The Power Station building, in the hands of the Public Works Department, has been erected. Foundations for 2-22 K.W. generating sets have been laid, pipe and cable trenches made and the cooling water tank completed. One set is on site ready for installation while the other will be sent as soon as bulk supply from the British Malayan Petroleum Company, Limited, to the Belait District is available. It is expected that the Power Station will be put into commission by February, 1957.

Distribution:

The erection of the L.T. Distribution line from the site of the Power Station to the centre of the Town, including all Government Quarters and Buildings and shop houses, has been completed.

Consumers:

Up to the close of the year under review a total of 245 points had been wired in Government Quarters and Buildings.

Meters:

A total of 47 meters have been installed in consumers' premises up to the close of the year under review.

CHAPTER XI

COMMUNICATIONS

SHIPPING

COMMENCING from the Western end of the State, Brunei ports are as follows:—

Kuala Belait:

Situated on the right bank of the Belait river about half a mile upstream from the river mouth, this port is extremely difficult to enter owing to the existence of a shallow sand bar lying right across the river mouth and over which heavy surf is constantly breaking. A shallow channel for vessels drawing up to 8' leads through the bar and is indicated by marker beacons in transit. This channel, however, is very narrow and subject to directional changes with the seasons, and during the year, as in 1955, a number of craft attempting it in heavy surf found themselves in difficulties. Fortunately, again no loss of life was experienced, and of a number of groundings only one vessel was a total loss, the remainder being refloated after jettisoning some cargo, mostly stone, and with little damage. The lost vessel, a dump steel 200 ton lighter, "Acacia Leaf" was under tow in mid-channel when her tow rope parted. She drifted onshore, fortunately well up the beach and clear of the channel, but continuous pounding in the heavy surf opened her bottom plates.

FACILITIES—There are four wharves in Kuala Belait, the longest of which, approximately 375' in length, is owned by the British Malayan Petroleum Company, Limited, and is used mainly by the Company's own vessels—commercial and other craft proceeding direct to the two Government wharves situated a short distance further upstream. The work of joining these two Government wharves together was completed during the year, and now provide about 350' of Government wharfage in one span.

The total tonnage of shipping handled in Kuala Belait during the year was 25,808 NRT of which more than 50 per cent was for the British Malayan Petroleum Company, Limited. This figure does not include some 10,000 tons of small local trading *Tongkangs* (broad beamed shallow draft wooden craft powered by small inboard or outboard engines) and small launches. In order to facilitate the repairs and inspection of Government vessels, a 'Grid' was designed and construction commenced in the latter half of the year. This 'Grid', a timber platform, constructed on the river bank at such a level that launches may be floated over it at high water and left high and dry as the tide recedes, will enable hull inspections and repairs to be carried out on the spot and save the time and expense formerly necessary of sending launches a 7 hours steam up the coast to be slipped at Muara.

Fresh water is not available to shipping in Kuala Belait and vessels using this port obtain their supplies in Miri, Labuan or Brunei Town.

Fuel oil and lubricants are obtainable in 44 gallon drums, and also a limited supply of fresh and dry provisions. There are various company owned cranes, one with a lifting capacity of 20 tons, operated on the company's wharf, and a 10 ton mobile crane operated by the Marine Department and available for private hire on the Government wharf.

The Straits Steamship Company's feeder vessels continue to ply regularly between Kuala Belait and Labuan but the shuttle feeder service between these and other ports in the Brunei Bay area that is Limbang, etc., has been discontinued by these vessels and is now maintained by rather smaller type vessels more suitable for upriver work. The British Malayan Petroleum Company, Limited, continue to carry the bulk of Kuala Belait cargo, which is consigned to themselves ex Labuan, in their fleet of Ramped cargo Lighters.

Native craft operating from this port are mostly small river launches and outboard engined craft and are used to carry local produce, and merchandise up and down the Belait river, for short coastal voyages, and fishing.

Vessels licensed in Kuala Belait during 1956 were:

Cargo Vessels	8
Passenger Vessels	12
Fishing Vessels	32

Tutong:

Situated on the Northern bank of the Tutong River about 8 miles upstream.

FACILITIES—The Tutong River is navigable by small native craft and light shallow draft vessels only, and very little facilities are provided for shipping at Tutong village. In common with most ports on the West coast of Borneo, the entrance to Tutong River is obstructed by a shallow, seasonally shifting sand bar across the river mouth. The village which is on the main road between Brunei Town and the oilfield possesses a 20' wooden wharf used mainly by native craft plying between Tutong and the upper reaches of the river, and as stand by berth for Government outboards and launches used as patrol boats and travelling dispensaries, etc., and based on Tutong.

The Government owned and operated vehicle ferry service continues to ply between Kuala Tutong on the North Bank of the river mouth, and Danau on the South Bank. Forming the main link between the two halves of the State, separated by the Tutong River, this service is in constant operation ferrying vehicles, the volume of traffic which again shows an increase on the previous year, as follows:—

	<i>Buses and Trucks</i>	<i>Land Rover, Jeeps</i>	<i>Motor Cycles</i>
1955			
June to December	3,600	1,216	248
1956 Full Year	11,135	4,704	1,111

The ferry service has been greatly improved, and delays at each side reduced to the absolute minimum required to load and unload, since the new all steel twin screw vehicle ferry M.A. "Pemancha" was delivered by the Department from Singapore in May, and immediately placed into service to relieve V.F. "Higgins" the twin screw wooden vehicle ferry which formerly replaced two

towed wooden pontoons. Considerably larger than V.F. "Higgins", the M.A. "Pemancha" can load twice as many vehicles in less time, and is equipped with a large steel "turntable" which enables vehicles to be swung round into carrying position and full advantage to be taken of all available deck space. Maintenance costs have also been considerably reduced as a result of her all steel construction.

Vessels licensed at Tutong during the year were:—

Fishing boats	18
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Muara (Brooketon):

Situated on the Western shore of Muara harbour.

FACILITIES—A small pier with a depth of 7' alongside at LWS exists at Muara, and the harbour provides a completely sheltered anchorage in depths of from 3 to 8½ fathoms. The pier, which is not provided with water for shipping is used mostly by small native launches and vessels waiting to be accommodated on Muara slipway or under repair. The Muara Slipway and Engineering Company continue to operate and service vessels of up to 200 tons, and during the year handled for slipping and overhaul a total of 1,520 NRT of light shipping.

Brunei Town:

The Capital of the State of Brunei, situated about 9 miles upriver from the inner Bar where Brunei River enters Brunei Bay.

FACILITIES—Government wharfage available for shipping in Brunei Town amounts to 400' of reinforced concrete Wharf, which also provides fresh water from five water points.

In addition to the above there exists a 25' faced timber wharf at Subok approximately 2½ miles down river from the Government wharf, and used by the Shell Company's tankers to service a bulk fuel oil installation.

The British Malayan Petroleum Company, Limited, completed two small wooden wharves upriver from Brunei Town at mile 3¼ and mile 5. These wharves, used only by the Company's own craft, were constructed to facilitate the Company's drilling operations in that area.

A reasonable supply of fuel oil, lubricants and fresh and dry provisions can be obtained in the Town, heavy lifts can be catered for by prior arrangement, and minor engine repairs effected for visiting shipping.

The Straits Steamship Company, Limited, continued their weekly Singapore/Brunei services during the year and the bulk of Brunei consigned cargoes thus arrives direct, very little transshipment at Labuan is now necessary.

The total tonnage of shipping handled alongside Brunei Town wharf during the year is as follows: Figures for previous years are given for comparison:—

	<i>N.R.T.</i>
1953	100,476
1954	122,237
1955	138,331
1956	253,348

It is interesting to note the quarterly increase for the year.

	<i>N.R.T.</i>
1st Quarter	36,548
2nd ,,	56,494
3rd ,,	76,329
4th ,,	83,977

In addition to the scheduled bi-monthly services operated by two different Hong Kong Shipping Companies, a considerable number of chartered vessels under Panamanian, French and Chinese colours are plying between Hong Kong and Brunei, carrying mostly road building materials, cement, a certain amount of general cargo, and returning with logs, lumber and scrapmetal. More shipping in the way of 300-400 ton dumb steels lighters and attendant tugs bringing stone from the Temburong deposits has also been handled, and in addition B.M.P. Company's barges, tugs and R.C.L.'s have been increasingly frequent visitors as the year drew to a close.

A State Pilotage Service was put into operation on the 1st January, 1956, pilots being made available on request. The pilots, trained by the Department in the handling of large vessels, are also *Serangs* of Government Launches, and this service has proved most popular with visiting Hong Kong and other shipping, formerly most reluctant to attempt a bar crossing except at the top high water.

Additions to the State fleet during the year were one all steel twin screw vehicle ferry, previously mentioned under "Tutong" and one 110 ft. all steel twin screw mail, passenger and general purpose vessel, M.V. "Bolkiah". This latter vessel delivered from Hong Kong by the department's personnel, has successfully dealt with the launch passenger traffic problem and together with M.V. "Sultan" has proved capable of maintaining the thrice weekly mail and passenger service to Labuan and catering for any number of passengers without the necessity of running extra services. A river launch service was also started in mid-year and operating thrice weekly, calls at Limbang, in Sarawak, thence up to Bangar (Temburong) and back direct to Brunei, thus providing a scheduled connection with a neighbouring port and an outstation, the public of which latter was formerly dependent on one Government out-board stationed there, and privately owned native craft for visitors to the Capital.

Passengers carried on these services during the year total 20,642, a decline on previous years due to the fact that a great number of artisans and labour travelling to and from Hong Kong are now travelling by shipping plying direct Hong Kong/Brunei, and by the new air service Labuan/Brunei and Singapore/Brunei, thus by passing the Labuan/Brunei passenger launch service.

Vessels operated by Government are listed below:—

M.V. "Bolkiah" 110' steel twin screw sea going mail and passenger vessel.

M.V. "Sultan" 85' wooden steel screw sea going mail and passenger vessel.

M.L. "Muara" 65' wooden twin screw fast passenger and inspection launch.

M.L. "Laila Menchanai" 45' wooden single screw bar launch.

M.L. "Pretty" 45' wooden twin screw general purpose river launch.

M.L. "Sri Seria" 35' wooden single screw river launch.

M.B. "Awang Semuan" 65' wooden single screw motor barge.

M.B. "Sri Belait"	}	35' wooden single screw work boats.
M.B. "Juanita"		

V.F. "Higgins" wooden twin screw vehicle ferry.

V.F. "Pemanha" steel twin screw vehicle ferry.

M.L. "Dove" 25' single screw aluminium dispensary launch.

Ramped Cargo Lighter, "Fairmile" twin screw aluminium alloy ramped cargo lighter.

Various other launch type craft are also operated on Departmental duties, and the fleet of fast outboard launches maintained at full strength for operation in the shallow upriver waterways where larger craft cannot navigate. Some difficulty has been experienced in finding replacements for, and constructing new hulls suitable for use with outboard engines, as the native made '*Tamoi*' (a long tree trunk, hollowed out by slow burning) is no longer obtainable, and it is now necessary to first lay a wooden keel and build up the hull plank by plank, thus approximately doubling the cost and construction time. The number of this type of craft, ranging in length from 12' to 32', operated during the year was 32.

Vessels of up to 4,000 GRT continue to use the deep water anchorage off the Island of Baru Baru, (approximately 2 miles East from the entrance to the Brunei River) and there, in completely sheltered water, load lumber cargoes and firewood from Barges and Lighters.

Two Hong Kong companies with Agencies in Brunei now operate small fleets of tugs and lighters which are available for hire for river work or short coastal voyages. Vessels of up to 1,700 GRT and drawing up to 16 feet are piloted over the inner bar on suitable tides, and proceed to Brunei Town wharf. After crossing this bar, which at M.L.W.S. is restricted to vessels drawing

Malayan Airways
plane at Brunei.



Brunei/Tutong
Road.



Trunk Road—
Brunei/Seria.



Road construction
Brunei/
Tutong.



7-8' various navigational hazards in the form of narrow bends and corners in the rivers are encountered by vessels wishing to reach Brunei Town, and the maximum overall length for any vessel proceeding beyond the inner Bar is 250'.

Navigation Aids—Lights:

Due to the non-delivery of the final two lighting units, the River lighting scheme was unable to reach completion in 1956. However, six electric flash units, each with different characteristics, were installed on the more dangerous shoals and bends during the year and have proved of immense value for night navigation. The whole scheme should be completed early in the new year.

Additional Marine drilling platform locations off the coast were also provided by the British Malayan Petroleum Company, Limited, with sea and air navigational warning lights.

Ampa Patches warning light was extinguished in the latter half of the year, and will shortly be re-established on the nearby drilling platform. Adequate warning to shipping is provided in the interim by many lights and flares exhibited on the platform and from attendant vessels.

Unlit Marker Beacons:

Practically all the above in Brunei's many water-ways and sea channels were renewed during the year, and new channels marked in the upper water of *Sungei Brunei*.

Visiting naval vessels in 1956 were as follows, and in that order:—

1. French naval vessel C.T.D. "Duboc"
2. U.S.S. "Pine Island"
3. H.M.S. "Dampier"
4. H.M.S. "Opposum"
5. H.M.S. "Dampier."

CIVIL AVIATION

The full length of the new airfield was available to air traffic by mid-September, but owing to the need to give due notice of alteration of schedules the Malayan Airways scheduled services from Singapore were not able to use the airfield until 1st November.

Thus another milestone has been achieved in the development of the State's communications in the establishment of a direct air service to Singapore without having to use the small feeder-line planes. From November 1st there were three services a week from Brunei to Singapore via Sibu and Kuching and one direct, with three services a week from Singapore via Kuching and Sibu. Bookings on these services were heavy and it has been clear from the outset that the construction of an airfield large enough to take aircraft of the Dakota type is fully justified.

From the beginning of the year to mid-September only the Feeder Service Rapides, British Malayan Petroleum Company's Prince and some Auster aircraft could use the 2,700 feet available. After mid-September the full runway 4,900 feet long with 200 feet over-runs was available: that is a total of 5,300 feet of paved surface.

The first aircraft of any size to land were Vickers Valetta aircraft of R.A.F. Transport Command bringing the R.A.F. band for His Highness' birthday celebrations.

Unfortunately the new terminal building was not ready when the Malayan Airways Dakota service began, and the old *kajang* control tower and terminal building are still in use. Close by, however, the new building is nearing completion giving hope of an early move to more satisfactory and becoming quarters.

Since Brunei airfield was opened in late 1954 landings have been as follows:—

1954	85
1955	870
1956	1,371
1956 Passengers Disembarking	3,595
1956 Passengers Embarking	3,822
1956 Passengers in Transit	1,670

Despite this increase in movements the air service remains inadequate and launches run to Labuan three days a week: a total of 20,642 passengers were carried by launch between Labuan and Brunei during the year.

The British Malayan Petroleum Company, Limited, had the following aircraft on their register during the year:—

Auster Aircraft	VRUDO
Short Sealand	VRUDV
Short Sealand	VRUDS
Percival Prince	VRUDA
Percival Prince	VRUDB
Percival Prince	VRUDR.

In addition two Bell Helicopters operated under charter from Bahamas Helicopters Limited, and two Westland Whirlwind Helicopters were in use. These latter are used for supplies and transport to off-shore locations and to working parties in remote areas. The Company's aircraft are used exclusively on the Company's own business, and for transporting personnel between Miri, Seria, Brunei and Labuan.

ROADS

The year 1956 the third year of three year development programme and the second year of operation by Road Section, shows a marked improvement in all classes of work undertaken.

In 1954 small isolated works were carried out over the State road system, and again in 1955 further works were carried out where the old road construction commenced to break up. All of these works had to be merged into a planned programme of road construction, and it was not until late in 1955 that sufficient survey data could be obtained to allow for a fully planned road programme to be set out. The completion of this planned programme commenced to show results very early in 1956 when long lengths of new construction became available to travelling public, and considerable lengths of formations on new road works prepared. Despite the setbacks encountered in the very wet period towards the end of 1955, when long lengths of road became quite impassable.

At the commencement of 1956 the Roads Section was considerably understaffed, and difficulty was being experienced in the forward planning of works, and the outdoor supervision of the road works and staff. Staff consisted of Chief Roads Engineer,

with three Roads Engineers and two Road Foremen, all recruited from outside the country. The engineers were assisted by three technical assistants who were engaged full time on forward survey and planning operations. In the early part of 1956 some additional assistance in the way of Overseers came forward, and in May a Senior Roads Engineer was appointed, later an Earthmoving Engineer was added to the staff with the disbanding of the former Heavy Equipment Section of the P.W.D. and its absorption into the Roads Section. At this time two additional Road Foremen were recruited from Australia, and a competent design draughtsman obtained to carry out the detail road design works.

The year apart from the last two months was a reasonably good one for road construction works, and the results achieved with the limited plant and unskilled labour available are considered very good. Heavy rain practically stopped operations in the last two months, so that progress slowed down considerably towards the end.

The badly damaged roads of 1955 successfully stood up to all the heavy Oil Company traffic during 1956, and there were no traffic holdups due to road failures. The experimental section of soil stabilisation carried out in the previous year have all given very satisfactory results and to date there have only been two small local failures directly attributable to faulty drainage, which have now been rectified. Stabilisation works completed as early as March, 1955, and laid at that time with inefficient machinery has carried satisfactorily, without any sign of break up the heavy Company loadings of 57 tons on three axles, which is far in excess of permitted loading in other parts of the world.

In the early part of the year pavement construction was pushed ahead in Brunei Town and Kuala Belait areas, and on the Tutong Road sections where restoration work had been in progress all through the wet season of 1955. This pavement work proceeded well whilst efforts were made to construct new formations ahead of operations. The plant available to Roads Section however was found to be quite inadequate for the purpose, being both too light for the heavy going, and due to age quite unreliable. Works on the paving side soon caught up with the forward formation units with the result that pavement works practically stopped for a considerable time. In April and May the Oil Company arranged

to hire a number of its heavy machines to the Government to enable earthworks to be speeded up, and an immediate speeding up of the construction work resulted. Unfortunately the Company machines were withdrawn in May for their own works, and again road construction in the Brunei end of the State suffered.

The withdrawal of the Company machines made it imperative for new equipment to be made available, and details were prepared and submitted for approval to purchase. With approval obtained orders were placed for a number of new and heavier units to allow for the construction works to be speeded up once more. Delivery delays for this plant held up works, and it was only in the later stages of the year, when the season was unfavourable for new construction, that any benefit could be obtained from the use of this new plant, with the results that the planned programmes of works both on the Brunei-Tutong, and the Tutong Liang, Lumut Roads could not be attained. Although road construction plans fell behind good progress was maintained particularly in the forward construction field, where considerable drainage projects and culverts were carried out, which will in the present year allow for a much quicker link up road section.

A very large part of the activities for the year were concentrated on provision for drainage, both by culverts, and bridges, and this work so essential in road construction is mostly hidden to the road travellers, so that a large amount of the work carried out is not apparent and consequently unfavourable comments are frequently made.

The most important work undertaken by the section during the year was the preparation of specifications, the calling of competitive designs, and the acceptance of Tenders for the four large bridges over the Kedayan River, Brunei Town, Kedayan River Gadong, the Tutong River near Tutong, and the Telamba River at Telisai. Designs were approved in November and preliminary construction works are already well advanced at Telisai. It is expected that the first two bridges will be completed by February or March 1958 and this completion date should coincide with the completion of paving on the road Tutong to Anduki.

Survey and design has been completed for the whole length of road from Tutong to Anduki, and contracts let for all bridges and drainage structures on the section Telisai to Anduki. Some of the bridges in this area are already complete, and the others all in various stages of construction. The design and commencement of these structures is a necessary feature of the programme, if the roadway is to be opened in 1958 as planned. The survey and the design of the Tutong Road is proceeding simultaneously with the construction and sufficient new work is being planned to keep the road plant in operation at all times.

Additional plant has come into operation during the year, the most important of which is the hot mix plant combined with the Barber Greene tamper and spreader. The operation of this plant has resulted in a remarkable improvement in the running surfaces of all completed roads, and the quality of the pavement surfacing will ensure a long life with a low maintenance cost. It is intended to give the whole of the main trunk roads a surfacing with this unit, and steps have been taken to procure sufficient trucks of special design to ensure the carriage of the hot mixed materials to distances up to 65 miles from the plant.

A new Road Depot has been commenced at Berakas airfield. This depot covers a large area, and is designed to cover all Road section requirements. The hot mix plant is installed and in full operation. A large metal storage and weight batching unit complete with conveyors was ordered early in the year, and is now on its way from the United Kingdom. This unit will operate in conjunction with the hot mix plant, and will provide large storage provisions for completely dry metal aggregates, thus ensuring a big step up in the output of the hot mix plant. The depot is also being equipped with a central reinforced concrete spun pipe manufacturing unit. This unit is designed to manufacture spun concrete pipes of maximum strength in diameters from 6" up to 48" and in lengths of from 4 feet to 8 feet. The old outmoded unit at Tasek will be scrapped after installation of this plant which at the end of the year was already in transit from the United Kingdom. Combined with the pipe manufacturing unit a complete bitumen emulsion unit is being installed. This latter unit will provide the whole State with its supplies of emulsion, which is so largely used in the road surfacings.

The Depot will later have a complete modern stone crushing unit together with a gravel washing and screening plant for the supply of more suitable concrete aggregates for both road and building purposes. This unit will have modern conveyor equipment together with riverside unloading gear, and it will on completion be possible to convey all the sections requirements of stone and other materials to the Depot site by water transport thus obviating the heavy lorry transport through the town areas now necessary. The area is being paved and fenced and provided with water supplies, and is to have a suitable amenities building fitted with wash and change facilities, undercover plant storage, and large cement storage buildings.

The year 1956 saw the alteration of the complete Development Road programme due to the acute shortage of serviceable plant in the middle period of the year. Concentration of effort has now been made on the Brunei Tutong Road, and the Danau, Liang Lumut Road. To do this it has been necessary to cancel all further construction work on the Brunei Berakas Road, and place this road on a care and maintenance basis only, and works on the Berakas Muara Road have been confined to providing essential drainage structures and the earthworks to service them.

Operations by Road Section units show a substantial increase over the year 1955 in almost every branch of activity. Details of the more important operations are set out below, and for comparative purposes the corresponding figures for 1955 are shown where available in brackets:—

Employees engaged on road works:

Day labour	1,148	(1,342)
Contract	542	(248)
Total:	1,690	(1,590)

New Road Constructions:

Brunei Town, Brunei-Tutong, Kuala Belait,
Seria—17.2 miles (5.16 miles).

Surface sealing of pavements:

Brunei Town, Brunei-Tutong, Kuala Belait-Seria—
257,372 sq. yds. (128,355 sq. yds.)

Equivalent to 20.9 miles of 21 ft. pavement roads.

Road Formations:

19.05 miles (13.5 miles).

Road Survey:

28.7 miles (53.0 miles).

Bridle paths Constructed:

2.65 miles (24.25 miles).

New bridges on Bridle paths:

75 nos. (56 nos.)

Concrete drains:

Brunei Town, Kuala Belait, Seria—

6 ml. 54 ch. (6 ml. 41 ch.) Completed.

6 ml. 20 ch. under construction.

7 ml. 69 ch. Designed.

New pipe culverts:

Constructed 101 totalling 3,036 lft. (92).

Reinforced concrete box culverts:

17 nos. (2).

Stabilised pavements:

126,400 sq. yds. (43,120 sq. yds.) Length 10.3 miles.

Construction new road shoulders:

20 miles 32 ch. (12 miles 40 ch.).

Clearing of rivers, streams:

35.7 miles (12.00 miles).

Construction of new side drains:

13.10 miles (18.50 miles).

Waterbound macadam road pavements:

12.4 miles (2 miles).

Stone crushed and carted and spread on roads:

32,986 cu. yds. (39,135 cu. yds.).

Berakas Quarry stone hauled and spread on roads:

68,338 cu. yds. (17,045 cu. yds.).

Earth fill placed on road formations:

391,000 cu. yds. (46,118 cu. yds.).

Bitumen and emulsion spread on road surfaces:

138,442 gallons (16,907 gallons).

Cement used in stabilising works:

90,981 bags (23,500 bags).

Cement concrete pipes manufactured:

1,747 nos. (1,222 nos.).

Hong Kong granite used in road seals:

11,602 cu. yds. (1,376 cu. yds.).

Hot Mix laid on road pavements:

50,742 sq. yds. (2,819 sq. yds.).

Major tests carried out in soil Laboratory:

1,074 (510).

A detailed description of the works carried out of in hand on the various projects at the close of the year is set out hereunder:—

BRUNEI TOWN ROADS—Considerable new road construction has been carried out during the year, and many roads have been widened, and the surfaces prepared for bituminous seals. A total of 16,000 lft. of new road construction was completed and surfaced with bitumen. Concrete drains totalling 9,850 lft. laid on new road works, and on existing roads.

Surface reseals and new seals totalled 75,040 sq. yds.

Road designs were completed after letting of the tenders for the new Clifford Bridge and the filling and part paving of this new approach is almost complete. Work is delayed due to the presence of telephone poles and lines, which must be removed and resited before road can be fully utilised.

New road pavement constructed in soil cement over the original pavement extending from the Hospital to the P.W.D. Barracks, near Government English school, and new cement pavement extending from the barracks to the Tongkadeh bridge. The construction of this section eased a very bad turn in the road, and also provided much wider pavement for the very heavy traffic.

At the close of the year extensive drainage projects were in hand extending from Kumbang Pasang to the Airfield by-pass, this work should have been completed well within the year but owing to presence of power cables, and power lines, work was seriously hindered, and completion must await until 1957.

KUALA BELAIT, SERIA TOWN ROADS—Road construction has been affected here by the periodic shortage of stone for pavements, and also in the aggregate for sealing operations. Despite shortages of these materials considerable progress was made.

Almost 16,000 lft. of new road work was completed during the period covering an area of 56,000 sq. yards.

New concrete drains totalling 24,560 lft. were constructed and at the close of the year a further 31,853 lft. was in hand, and an additional 41,497 lft. designed and awaiting tender.

TUTONG ROAD—Road construction progressed very satisfactorily in the early part of the year, when the restoration works carried out in late 1955 were available for the laying of the final pavements. Construction work slowed down when the plant shortage became acute, and later recovered when the Company plant was put into operation. With the withdrawal of the Company plant in May, the work has slowed down to a considerable extent, but with the regrouping of the available Government plant it has been possible to make steady if not spectacular progress.

The road survey is now well in advance of the construction.

Work has been completed on, or is in progress on a total of $16\frac{3}{4}$ miles of road.

Cement stabilised pavements have been laid covering 122,100 sq. yards, new road shoulders constructed over a length of 37,000 yds. and $10\frac{3}{4}$ miles of new side drains completed.

Some 76,500 cubic yards of fill has been carted and placed in new road formations, and 28,000 cubic yards of crushed stone carted and placed in road pavements or in stockpiles, and 29,000 cubic yards Berakas sand and stone carted and laid in the road subgrades.

Approximately 60 culverts were constructed, complete with R.C. headwalls etc.

A total of 85,000 bags of cement was laid and spread in the stabilising operations on this road.

Road construction to the end of the year was complete from the 1 mile from Brunei to the $6\frac{1}{2}$ mile with the exception of a small break near the 2nd mile where culvert construction prevent road pavement being placed. Small lengths of incomplete work remain from the $6\frac{1}{2}$ to the $7\frac{1}{2}$ mile and then complete pavements with exception of hot mix surfacing was provided to the 9th mile. From 9th mile to the 16th mile long lengths of completed pavements apart from seal coats have been constructed and these are rapidly being linked up as the earthworks at bad bends become completed.

New road construction from 12th mile to the 14th mile was commenced in mid December, and this will provide a high speed road over an area where previously traffic had to move at a very slow and careful rate.

A large amount of new filling has been placed in isolated sections extending from the 16th mile to the 27th mile and the effects of this fill will be reflected in faster completion of pavements later in the coming year.

Steps have been taken to stockpile large quantities of crushed stone for future road use, and there should not be any shortage of this material for future road works.

BRUNEI-BERAKAS ROAD—Early in the year extensive penetration seals, and later seal coats were placed on the stone pavement extending from the Muara turn off and also extending from Berakas towards Brunei. This work proceeded to a stage when a little over 2 miles of the road required to be surfaced. Due to the possible closing down of the Berakas Quarry, and the shortage of plant on works, all further works on this road were stopped, and the road placed on a care and maintenance basis.

Extensive works however have been completed during the year, the details being as follows:—

Completion of the Berakas airfield by-pass road totalling 8,373 lft. of new construction. This construction was of a most difficult type, the country being very unsuitable for road construction with a result that the time taken for completion was far in excess of that originally planned. This road has been surfaced, but hot mix seal not placed over the whole length.

The section of road extending from Muara turnoff back to the airfield by-pass has been given a hot mix surface a total of 835 cubic yards of hot mix being carted and spread.

Approximately 300,000 cubic yards of fill was carried and spread in the new construction works, and 24,276 sq. yards of bituminous surfaced pavement laid down.

MUARA ROAD—Survey work has proceeded well on this road, and some $9\frac{1}{2}$ miles of survey is now complete, and some $4\frac{1}{2}$ miles cleared of land resumption difficulties.

Construction work has been limited by the shortage of plant, and later the decision to curtail works on this road. Good progress has however been made with the construction of culvert structures, and the provisions of earthworks and pavements in approaches to these structures. In providing the fill for these culverts it has been possible to cut off a number of small humps in the road, and provide more continuous lengths available for immediate paving when the decision is made to restart the construction works.

About 4,500 sq. yards of new road widening has been completed, with one third of a mile of new formations complete.

Two new R.C. box culverts have been completed or are in course of completion, together with a number of Pipe culverts.

Road shoulders over a length of 3,960 Lyds. have been constructed, and side drains totalling 4,000 Lft. built.

Approximately 15,000 cubic yards of filling has been placed in the road formations, and over 9,500 cubic yards of Berakas stone and sand used in the road pavements.

A length of experimental soil stabilisation near Muara has been laid down, but due to the sand being impregnated with coal no satisfactory surface could be obtained. The subgrade however is quite sound and it will be used to support a heavy hot mix surfacing coat when work is recommenced.

JERUDONG ROAD—No new construction work has been attempted on this road, and it is on a maintenance basis only until such time as the major road construction projects reach a stage when plant can be released for the work.

KUALA ABANG ROAD—Maintenance work only being carried out on this road, and it will be necessary before any new construction proceeds to carry out detailed survey and design.

LIMBANG ROAD—This road has been well maintained and is in quite good order throughout.

BANGAR-PANDARUAN ROAD—The road has been well maintained, and is in reasonable order. Bridges have been strengthened.

ANDUKI, LUMUT, LIANG, DANAU—Construction work has been proceeding throughout the year on the section Danau Telisai, Lumut. Owing to weather conditions plant operations were suspended in August on the section of road Liang towards Tungaliang, and all plant and equipment transferred to the Telisai section of the road. At the end of the year earthworks had been roughed through from Lumut Bridge to Tungaliang, and from Danau through Telisai extending towards Tungaliang, leaving only

a section about $1\frac{3}{4}$ miles in length still to be done. The section of road Anduki Lumut has been surveyed and designed, and contracts have been let for all bridge and drainage structures on this section. To date no earthworks have been carried out on this length.

During 1956 a total of 6 miles of formation was constructed on the section Danau Lumut, and this construction could easily have been improved upon if the heavier plant ordered had arrived earlier. All drainage structures have been completed on this new formation, and as weather improves the trimming and consolidating of the formation will proceed preparatory to placing of road pavement.

Drainage structures completed during the year totalled 9, comprising $3\frac{1}{2}$ cell R.C. Box culverts, $1\frac{1}{3}$ cell Armco pipe culvert, $1\frac{1}{2}$ cell, and 2/single cell Armco culverts, and 2/20 feet span R.C. bridges. A total of $5\frac{1}{3}$ cell and $3\frac{1}{2}$ cell R.C. Box culverts were out for tender at the end of the year, and 6 large R.C. bridges were under construction.

Long lengths of the new formation Danau towards Telisai have been treated with clay admixtures preparatory to the soil stabilising for pavement construction, and actual pavement construction should commence very early in the coming year.

TUTONG, TELAMBA, TELISAI—No actual construction work has been carried on in this section owing to difficulties of access with heavy plant. Very large barrack accommodation has however been erected at Telisai, to house the road staff expected to be engaged on works in the Section.

Tenders have been let for the two large bridges over the Tutong and Telamba Rivers, and construction of these bridges is expected to be complete in February or March of 1958, which is the time scheduled for completion of the formation and pavements on the section Danau, Telisai Lumut.

LABI ROAD—This road has been well maintained during the year despite the exceptionally heavy rains experienced almost continuously. A considerable amount of protective works has had to be undertaken to prevent destruction of earthworks, and also

to rectify the damage caused by the lack of essential maintenance in the latter stages of the Oil Company control of this road. One large earth slip has occurred near the 7th mile peg, but owing to the smallness of plant available it has not been possible to correct this, and temporary planking roadway has been laid over the area to maintain traffic.

Considerable improvement has been carried out to the installations at Bukit Puan, additional barrack accommodation provided for drivers and other personnel, and improvements made to Foreman's residence etc.

BRIDLE PATHS—Bridle paths have been fully maintained during the year and considerable improvements made especially in the provision of bridges over small streams. The construction of new bridle paths fell well below that for 1955, but the construction of bridges in 1956 shows a marked increase both in numbers and in overall lengths.

The maintenance of paths is being let out wherever possible on a Contract basis, and this system seems to be working very effectively particularly in the Temburong area.

BITUMEN SPRAYING UNIT AND HOT MIX PLANT—The Bitumen spraying and hot mix section has had a particularly busy year, and the plant has been working to full capacity. Many of the older roads in the Brunei Town area have been resealed, and all new construction works, primed, and later sealed.

The Hot Mix plant came into operation late in the year and in the short period of its operation it has placed 50,742 sq. yards of surfacing, totalling 2,819 cubic yards of mixed material.

Quantity of Bitumens and emulsions sprayed by the unit for the year amount to 138,442 gallons as against a total of 16,907 gallons for the year 1955.

TELECOMMUNICATIONS

A direct radio telegraph service is maintained between Brunei and Singapore, and also with Kuala Belait, Seria and Temburong within the State, Jesselton and Labuan in North Borneo, and Kuching and Limbang in Sarawak.

Radio telephone links are maintained between the following places; Brunei Town, Tutong, Kuala Belait, Miri, Limbang, Labuan and Jesselton.

Most of the automatic telephone equipment has been installed at Kuala Belait telephone exchange during the year.

POST OFFICES

There are six Post Offices in Brunei State, situated in Brunei Town, Tutong, Bangar (Temburong District) Kuala Belait, Seria and Muara and a Postal Agency in Labi.

Mails to and from these places are usually conveyed by bus and launch. An inland air mail service between Brunei Town and Seria operating daily from Monday to Saturday was maintained.

In addition to the weekly overseas surface mails, regular and frequent overseas air mail services were maintained. These services provide 7 air mail despatches per week, and 8 arrivals from Singapore.

An inland and overseas air mail service for second class mails was made available during the year.

The total number of articles dealt with during the year was 1,734,576 compared with 1,460,341 in 1955.

CHAPTER XII

PRESS, BROADCASTING, FILMS AND GOVERNMENT INFORMATION SERVICES

Press:

THE Borneo Bulletin remains Brunei State's only commercial newspaper, and during 1956 the circulation continued to rise; by the end of the year (the third year of the newspaper's existence) just over 8,000 copies per issue were being sold throughout British Borneo.

The Bulletin appears each Saturday morning, and sells at 20 cents per copy. It is published by its proprietors, Messrs. Geoffrey Kerr and W. F. Runagall, and is printed at the Brunei Press, Kuala Belait. The Brunei Press also prints the English and Malay editions of "Salam", the British Malayan Petroleum Company's non-commercial staff newspapers.

An important press development during the year was an announcement, late in 1956, by the proprietors of the Borneo Bulletin that they were preparing to begin publication of a Malay language newspaper in 1957. The necessary new machinery was delivered in December, 1956, and the newspaper was to appear in February, 1957. Both Jawi and Rumi forms of the written language were to be used. The title '*Berita Brunei*' has been chosen for it.

The Brunei Press, Kuala Belait, continued to expand during 1956, and continued to function as Brunei State Printers. New machinery was introduced from Britain, Hongkong and Japan to keep the press technically up-to-date, and equipped to meet all calls upon it. At the end of the year the press was employing 36 workers, approximately half of them locally-engaged. Discussions were in hand between the Government and the press with a view to introducing a formal scheme for training youths as printing apprentices.

Broadcasting:

There was no broadcasting services in the State during 1956, but detailed planning for the broadcasting station to be established in 1957 was undertaken, and plans were in an advanced stage for the building. All necessary equipment has been ordered.

The Broadcasting Service will be centred in a new Broadcasting House to be built in Brunei Town, feeding by VHF to a 20 kilowatt Medium-wave transmitter at Tutong. A small studio will be established in the oilfields area, also feeding by VHF link to the Tutong transmitter, so that programmes can be broadcast from either of the two main centres in the State.

The immediate endeavours towards the end of 1956 were directed to the establishment of a small pilot station using a 2 Kilowatt transmitter which is to be the emergency stand-by transmitter when the big station is built. An old store building in Brunei Town was in process of conversion to studio, at the end of the year, the 2 Kilowatt transmitter and equipment was on the high seas en route to Brunei, staff was being trained at Radio Sarawak and there is every hope of getting on to the air in the first quarter of 1957.

Information Services:

An important event of the year, was the participation of Brunei in the Conference of Information Officers, from the British territories, held in London from June 18th to 28th, 1956 at which the Assistant Information Officer, Pengiran Mohamed Yusuf bin Pengiran Haji Abdul Rahim, attended as observer. He later attended the Commonwealth Youth Conference, at the Great Missenden Abbey, Buckinghamshire, England, towards the end of July.

Another important occasion was the second Inter-Territorial Conference of British Borneo Information Officers, held in Kuching in April at which the State Information Officer, Brunei, *Inche* Suhaimi Haji Amin attended. The Sarawak Government was most hospitable in being host to the delegates to the Conference, including those from North Borneo, and the British Embassy in Djakarta. These Conferences greatly benefited all concerned, especially Brunei, in matters of mutual interest concerning the common field.

In November, three important persons visited the Office—Mr. P. R. Noakes, Principal Information Officer, from the Colonial Information Office, London; Mr. James Elliott, Director of the United States Information Service, Singapore; and Mr. Leslie Smith, Regional Information Officer, Hongkong.

A water-colour painting exhibition, was held in the Brunei Town Office Reading Room by Mr. Simon Yew, a prominent North Borneo artist. The exhibition which ran for three days, was well attended by local art lovers.

On February 15th, a fortnightly romanised Malay bulletin with the purpose to disseminate Government news further afield into the *ulus* was started under the name of *Pelita Brunei*. This paper is at present cyclostyled, with a specially designed cover printed by the Brunei Press, Kuala Belait.

The paper was first published at 1,000 copies; but soon had to be increased to 2,000, the present output. The distribution of *Pelita Brunei* which is done free, is through the good offices of the District Officers, and schools. It is popular with an increasing number of readers in the towns, as well as with those abroad from as far as Malaya.

The original intention was to print the *Pelita Brunei* in the conventional newspaper form, but this had to be held in abeyance until the current difficulties have been overcome.

The Government Information Service rural film showings benefited more than 100,000 people during the year. The shows which were handled by three mobile cinema units, of two persons each, visited remote areas: as far as Malilas in the Belait District, and to the *Kampong Amoh* in the Temburong District.

Altogether about 2,000 reels of films were used, amongst which were those kindly loaned by the Public Relations Officer of the Australian Commission in Singapore, as well as those from the United States Information Service, Singapore.

The Department continued to purchase films from the Malayan Film Unit; and received weekly print of British News films from the Central Office of Information, London.

A series of special film showings on the planting of rubber was organised by the State Agricultural Officer in conjunction with the Department, at various villages in Brunei District. Malayan Film Unit films on the scientific methods of rubber planting with Malay commentary, were used. This was to support the campaign to get more smallholders interested in the Government's subsidised rubber development scheme.

More people used the reading room facilities both at Kuala Belait, and at Brunei Town. The attendance records showed that more than 14,000 people visited the Kuala Belait Reading Room; and more than 21,500 people used the facilities in Brunei Town.

In Brunei Town, a small library formerly belonging to the defunct Brunei Library, and housed in the Reading Room came under the charge of the department. Membership was free to anyone, with the maximum of two books for a fortnight.

Increased reading materials were distributed, especially to schools where they individually had set up their own reading rooms, for use of the staff and the schoolchildren. Some of these reading rooms are also open to the local public.

The difficulties in getting a photographer had temporarily put the darkroom facilities which were started since the previous year into disuse and made it necessary to continue despatch of negatives for processing by a commercial studio.

PART III

CHAPTER I

GEOGRAPHY

BRUNEI is a State on the north-west coast of Borneo, lying between latitude $4^{\circ} 2'$ and $5^{\circ} 3'$ north and longitude $114^{\circ} 4'$ and $115^{\circ} 22'$ east. It forms two enclaves into the territory of Sarawak, by which it is bounded on all sides, or perhaps it would be more correct to say, historically speaking, that an intrusion of Sarawak formed by the basin of the Limbang river splits the State into separate parts. It comprises of an area of some 2,226 square miles, and has a coast line of about one hundred miles extending from Brunei Bay in the East to the boundary with Sarawak in the West.

The capital of the same name, or to give its honorific Arabic title, *Daru'l Salam* (Abode of Peace) is situated on the Brunei River, about nine miles from its mouth and is distant by sea 759 nautical miles from Singapore. At the time of the last census in 1947 it had a population of 10,620. Prior to 1910 the town consisted entirely of Malay houses built on *nibong* piles on mud flats on the river, but it has now spread over a portion of the mainland, partly reclaimed, on which the Government offices and other public buildings and streets of shophouses have been built.

Set in a wide sweep of the river, this river town is in its way unique. At high tide under favourable conditions of light it takes on a quite remarkable beauty; viewed at close quarters it is even more remarkably ramshackle. The houses are grouped together in small villages, many being connected by precarious bridges, and there the inhabitants carry on their multifarious activities in much the same way as if they were on land. The only other town of any size is Kuala Belait at the south-western end of the State's sea-board with a population about 5,000. In the Seria area, which is the centre of a rapidly expanding oil producing district and the local headquarters of the British Malayan Petroleum Company, the population is approximately 12,000. At Kuala Belait with municipal services, piped water

supply, electric light, domestic gas, cold storage, cinemas and other amenities, it is difficult to realise that within living memory it has been the scene of human sacrifices and that only two hours upriver there are *pagan* tribes treasuring the grisly relics of head hunting expeditions of not so long ago.

Climate:

The climate is tropical and is characterised by uniform temperature, high humidity and copious rainfall. The heat is usually tempered by a slight breeze and the temperature rarely exceeds 90°F; the usual daily range is between 76° and 86°F.

The annual rainfall varies from 100 inches at the coast to over 200 inches in certain parts of the interior. There are no well defined seasons, but the rainfall tends to be heaviest from October to the middle of January during the period of the Northeast monsoon.

Local standard time is eight hours ahead of Greenwich time (meridian 120°E.). As the mean longitude of the State is roughly 115°E. there is a short of natural daylight saving of about twenty minutes.

CHAPTER II

HISTORY

THE native name for the island of Borneo has always been Pulau Kalimantan, but a Mercator's chart of 1595 gives to the town of Brunei as well as the whole island, the name of "Borneo". Early writers spell the name of the island variously, Brunei, Brunnai, Brune, Borneo, Borney, Bornei, Borne and Burni; from these variations upon the theme of one word, two words eventually crystallised—"Brunei" and "Borneo". As recently as 100 years ago, Brunei territory was always referred to "Borneo Proper". The fact is that at the time of the earliest cartographers and writers, the kingdom of Brunei was at its zenith; the terms "Brunei" and "Borneo" were synonymous and the whole island was subject to the dominion of Brunei.

Brunei has no discovered pre-history and no established early history, and the meagre written records do not go further back than the first Mohammedan Sultan, contemporaneous with the introduction of the Arabic script in or about the fifteenth century. For records of the pre-Muslim era we have to turn to Hindu and Chinese chroniclers. Chinese annals of the sixth and seventh centuries contain reference to a kingdom known as Poli or Puni which sent tribute to the Emperors of China in A.D. 518, 523 and 616. Similar references to a state of that name 45 days' sail from Java occur in the annals of the Sung dynasty which ruled over South China from about 960 to 1280 A.D., and there are strong grounds for identifying it with Brunei, though the authorities are not unanimous on this point. With the decline of the Sung dynasty Brunei transferred its allegiance to Hindu Majapahit in Java, then back again to China, and finally at the end of the fourteenth century, paid tribute to Mohammedan Malacca. With the coming of the Ming Emperors the ties with vassal states were strengthened and tributes were sent to China several times between 1405 and 1425. Thereafter there is no record.

Brunei must soon have thrown off all allegiance for by the early years of the sixteenth century it had risen to great power, and one of its rulers, Sultan Bolkiah, or Nakhoda Ragam (the Singing Captain) a renowned sea rover, voyaged to Java and Malacca and made conquests in Borneo, the Philippines and Sulu and even seized Manila. The names of many islands scattered throughout the archipelago are alleged to commemorate the circumstances of his voyages. One legend is that he set out on a cruise with a *gantang* of pepper seeds and was not content to return until he had given to each seed the name of one of the myriad islands encountered. His wife was a Javanese princess whose followers intermarried with the people of Brunei, and such, according to one tradition is the origin of the Kedayans whom custom associates with the main bodyguard of the Sultan and who introduced in Brunei a system of rice cultivation greatly superior to local standards. It is related that in his declining years he carried with him on his exploits a band of artisans whose duty it was to prepare royal tombs in remote parts of the archipelago, it being his wish should he die at sea to be buried at the nearest site, the finest of these is said to contain his remains at Kota Batu, about $1\frac{1}{2}$ miles downstream from Brunei Town. This tomb of exquisite workmanship in hard basaltic stone was damaged by Spanish round shot in the seventeenth century and is now in a sorry state of dilapidation and the engravings upon it remain a secret to posterity.

This was the golden age of Brunei. Her sovereignty extended over the whole island of Borneo, the sultanates of Sambas, Pontianak, Banjarmasin, Pasir Kotei and Bolongan being her vassals, as well as over the Sulu archipelago and over the islands of Balabac, Banggi, Balambagan and Palawan.

It was probably during the lifetime of Sultan Bolkiah that Pigafetta, the Italian historian of Magellan's voyage around the world, visited Brunei and wrote the first eye-witness account in which he bore evidence as to the splendour of the Court and the size of the town of Brunei, the population of which he estimated at 25,000 families.

Kublai Khan, the Mongol Conqueror, is known to have sent an expedition from China to the eastern archipelago in 1292 and it is more than probable that this was the origin of the Chinese

colony in northern Borneo which is commemorated in the nomenclature of Kinabatangan river and the mountain Kinabalu and which according to tradition provided Brunei with an early ruler.

In 1291, according to Marco Polo there was a considerable junk carried trade between Brunei and China.

In Brunei, the traditional ceremony, the royal procedure and the nomenclature of officers of State, all commemorate Hindu and Chinese influences. The Hindu influence emanated from the Empire of Majapahit in Java and according to Javanese records a force expelled Sulu marauders from Brunei in 1368 and Brunei is mentioned as one of the countries conquered during the reign of the Angka Wijaya who was the last king to reign over Majapahit before it was vanquished by Mohammedan Malacca.

The Portuguese visited Brunei in 1526 and confirmed the flowing account of Pigafetta. Further visits were paid by the Portuguese until 1530, and a trading factory and a Catholic mission were established at the beginning of the next century. Spain, too, having possession of the Philippines, evinced an active interest in Brunei affairs and twice attacked the capital. Later the English and Dutch in turn make sporadic appearance.

Towards the end of the sixteenth century the power of Brunei began to decline and the outlying territories gradually fall away. The Dutch, having established trading stations on the Southwest, South and East of Borneo rapidly extended their sphere of influence over the semi-independent but nominally vassal sultanates. This disintegration continued until by the beginning of the nineteenth century the Kingdom of Brunei had so dwindled in extent as to include only what is now Sarawak and part of North Borneo.

At this period the capital itself seems to have degenerated to the condition of a slave market for the sale of captives of Illanun and Sulu pirates. Anarchy was rife in the outlying districts and in 1841, in return for his services in assisting the Bendahara Raja Muda Hashim, Viceroy of Sarawak, to quell an insurrection at Kuching, Sarawak proper was ceded to Mr. James (later Sir James) Brooke, who was proclaimed Rajah of Sarawak. In 1846 the island of Labuan was ceded to Great Britain as a base for anti-

piracy measures and for the watering and careening of ships, and in 1877 the whole of the northern portion of Borneo was ceded to form the nucleus of what was to become British North Borneo. At various later dates further cessions were made to the Rajah of Sarawak and to the British North Borneo Company till the territories of the State were eventually reduced to their present circumscribed limits.

In 1847 the Sultan entered into a treaty with Great Britain for the furtherance of commercial relations and the mutual suppression of piracy with an additional clause providing for extra-territorial jurisdiction over British subjects in Brunei, which provision was modified by the Agreement in 1856. By a further treaty made in 1888 Brunei was placed under the protection of Great Britain, and the Sultan agreed that the foreign relation of the State should be conducted by Her Britannic Majesty's Government. Provision was also made for the setting up of consular courts with jurisdiction over British subjects and foreign subjects enjoying British protection. In 1906 a supplementary agreement was entered into whereby the Sultan undertook to accept a British Officer to be styled Resident, who should be the agent and representative of the British Government under the High Commissioner for the Malay States.‡

The years between 1906 and 1941 were years of steady progress. Very shortly after the treaty a form of Government was set up under the Sultan in Council and the British Resident, and law and order was established. Roads were built, people were encouraged to become agriculturists and fishermen according to their way of life. Conditions of housing were improved and trade flourished. The discovery of a workable oilfield at Seria only 10 miles from Kuala Belait in 1929 gave added importance to the State and its revenue increased and Brunei became prosperous.

Period of Japanese Occupation:

In the early morning of 16th December, 1941, the first wave of Japanese Forces landed at Kuala Belait and occupied the oil-fields at Seria. Six days later on 22nd December, Brunei Town

‡ The treaties and agreements relating to events described in this and the preceding paragraph were published as appendices to the Annual Report for 1946.

was occupied and all the British Government Officials were interned. Almost immediately the Japanese introduced their East Asian Co-Prosperity policy, but it had a bad effect on the people's morale when public thrashing had to be attended and later the Japanese dropped that policy to a certain extent. People living near Kuala Belait were driven to work in oilfields and the country folk were forcibly made to grow food.

Trade, of course, came to a standstill and only certain shopkeepers were allowed to remain as distributors. Luckily for the native population the Government in the years immediately preceding the outbreak of war had compelled traders to import large stocks of rice, the staple food, in case the European war disrupted shipping in the Far East. As a result of that policy the population had ample food for the first year and only slightly less in the second year, but by the end of 1943 the stocks had been used up and only a trickle of food was able to enter the country owing to Japanese shipping losses. Even the Japanese themselves lacked food, but not for long. As soon as the local harvest was in the majority of it was confiscated to feed the Japanese Forces and a serious state of starvation prevailed. Medicines were almost non-existent, malaria spread and the resistance of the population to disease was broken down.

The Japanese policy seems to have been one of neglect. No anti-malarial work was done and no maintenance of houses, roads, ditches or water transport was even contemplated.

In 1944 the Allied Air Force began to take an active interest in Brunei. There were almost daily raids somewhere in the State and later the main town areas were destroyed by bombing. All the shophouses were destroyed in Kuala Belait and Brunei Town and in the latter town the newly completed hospital with X-ray equipment was literally blown off the face of the earth. Luckily the famous River Kampong was spared but many houses have scars of machine gun bullets to bear witness to those frightful days. Most of the native population went into the interior to look for a piece of land to cultivate and live on until the coming of the Allied Forces.

Allied Re-Occupation:

On 10th June 1945, the Allied Forces landed at Muara and proceeded towards Brunei which they entered easily, having only encountered small activity. The Japanese in the meantime were busily destroying their installations in setting fire to the oilfields at Seria. Realising that the end had come the Japanese took out all the civilians imprisoned for suspected anti-Japanese activities and executed them in their usual cowardly fashion. Their forces then moved upcountry and into the interior where many of them met untimely ends at the hands of the Dyaks.

Almost immediately a system of Government was set up under the British control and so began the era of reconstruction under the British Military Administration. The population was found to be in a shocking state of health and it is no exaggeration to state that if the landing had not taken place when it did thousands of people would soon have perished through starvation and disease.

Free food and clothing were distributed as quickly as possible to the whole population and the sick were taken to hospital. Those Government servants who were still capable of work reported for duty and the gaps were filled by many wellknown members of the various communities.

Distribution of supplies was difficult because Japanese had allowed the roads to revert to jungle and grass was growing on many of the roads in the town area. Water transport was scrapped together from old hulls and Japanese engines were put into them. Rubble had to be cleared away in the town, bomb-craters filled in and road rehabilitated.

Temporary shophouses were built along the river bank and partly over the water from the beginning of Jalan Stoney up towards the Customs Wharf until such time as the shop area could be cleared and drained.

Gradually the health of the population improved and order was restored to something like normal. Trade began again though very slow and prices, other than those goods distributed from the Supply Depot, were prohibitive at first.

On 6th July, 1946, the Government of the country was formally handed over to the Civil Authorities.

CHAPTER III

ADMINISTRATION

BRUNEI is a sultanate. The present Ruler, the twenty-eighth of his line, His Highness Sir Omar Ali Saifuddin, K.C.M.G., was born on 23rd September, 1916, and succeeded to the throne, on the death of his elder brother, on the 6th June, 1950.

The Supreme authority in the State is vested in the Sultan in Council. The State Council consists of twelve members, including the British Resident with the Sultan as President. The assent of the Council required for the enactment of legislation and important questions of policy are referred to it. The following is a list of members of the State Council during the year:—

His Highness the Sultan Sir Omar Ali Saifuddin Wasa'dul Khairi Waddin ibni Almerhom Sultan Sir Mohamed Jemal-ul Alam, D.K., S.P.M.G., K.C.M.G.

The British Resident, Mr. J. O. Gilbert.

Duli Pengiran Bendahara Muda Hashim ibni Almerhom Pengiran Anak Abdul Rahman.

Duli Pengiran Pemancha Anak Haji Mohamed Alam ibni Almerhom Pengiran Anak Abdul Rahman, D.K.

Pengiran Maharaja Laila Anak Kahar ibni Almerhom Pengiran Haji Mohamed Yassin, S.M.B.

Pengiran Kerma Indra Mohamed bin Pengiran Piut, M.B.E.

Pengiran Haji Mohamed Salleh ibni Pengiran Haji Mohamed, S.M.B.

Pehin Dato Perdana Mentri Haji Ibrahim bin Mohamed Ja'afar, D.K., O.B.E.

Pehin Orang Kaya Di-Gadong Awang Haji Mohamed Yussof bin Jawatan Dalam.

Mr. E. W. Cousens.

Mr. R. E. Hales, C.B.E.

Mr. George Newn Ah Foott.

The general functions of administration are carried out by a British Resident under the supervision of the Governor of Sarawak as High Commissioner. By a Treaty of 1906 the Resident's advice must be asked and acted upon in all questions other than those affecting the Mohammedan religion. The seat of Government is in Brunei Town and there are Assistant Residents at Kuala Belait and at Headquarters.

The State is divided into four administrative districts, namely, Brunei and Muara, Temburong, Tutong and Belait, in each of which there are Malay District Officers who are responsible to the Resident.

At Brunei, Tutong and Kuala Belait there are Sanitary Boards whose members, of all nationalities, are appointed by Government. They are responsible for sanitation, conservancy, street lighting, rating and other municipal matters within their respective areas.

Government continues to control the distribution of commodities such as rice and sugar. For this purpose there are Supply Depots in Brunei Town and Kuala Belait, and prices are strictly controlled.

CHAPTER IV

WEIGHTS AND MEASURES

BOTH English and local weights and measures are used. The legal standard weights and measures from which all others are ascertained are the Imperial yard, the Imperial pound and the Imperial gallon.

The following are the principal local weights and measures and their English equivalents:—

The *chupak* equal to 1 quart.

The *gantang* equal to 1 gallon.

The *tahil* equal to $1\frac{1}{3}$ ozs.

The *kati* (16 tahils) equal to $1\frac{1}{3}$ lbs.

The *pikul* (100 katis) equal to $133\frac{1}{3}$ lbs.

The *koyan* (40 pikuls) equal to $5,333\frac{1}{3}$ lbs.

APPENDIX

TABLE SHOWING QUANTITY AND VALUE OF IMPORTS FOR YEARS 1955 AND 1956

APPENDIX

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Group No.	Heading	Unit	1955		1956	
			Quantity	Value \$	Quantity	Value \$
001	Live animals, chiefly for food ...	heads	43,737	1,677,036	50,683	1,781,198
011	Meat; fresh, chilled or frozen ...	lbs.	287,883	402,001	257,228	379,445
012	Meat; dried, salted or smoked (not canned) ...	"	511,236	1,004,432	425,063	866,012
013	Meat; canned, and meat preparations, canned and not canned ...	"	453,713	1,078,624	306,636	805,839
021	Milk; and cream; fresh ...	"	—	—	—	—
022	Milk; and cream evaporated, condensed or dried ...	"	1,452,198	1,006,471	1,413,393	952,381
023	Butter ...	"	158,088	310,414	114,939	236,350
024	Cheese ...	"	46,685	83,186	33,392	50,209
025	Eggs ...	pcs.	1,431,651	305,243	1,486,828	292,362
026	Natural honey ...	lbs.	2,032	2,378	2,310	2,529
029	Miscellaneous dairy products ...	—	—	685,372	—	476,229
031	Fish; fresh or simply preserved ...	pkl.	3,385	340,521	2,347	296,856
032	Fish canned and fish preparations ...	lbs.	528,686	651,315	380,526	592,466
041	Wheat unmilled ...	pkl.	—	—	—	—
042	Rice ...	"	25,198	738,092	68,460	1,785,693
043	Barley unmilled ...	"	—	—	—	—
044	Maize (corn) unmilled ...	"	—	331,017	—	262,513
045	Cereals unmilled, other than wheat, rice, barley and maize ...	"	—	—	—	—
046	Flour (Wheat) ...	lbs.	2,140,017	513,064	1,376,631	342,565
047	Cereals milled, except wheat flour ...	"	—	2,836	—	3,401
048	Cereals preparations ...	pkl.	—	856,050	—	868,351
051	Fruits and nuts, fresh (not including oilnuts) ...	"	—	687,477	—	623,848

APPENDIX "A"—(Contd.)

Group No.	Heading	Unit	1955		1956	
			Quantity	Value	Quantity	Value
				\$		\$
053	Fruits preserved and fruit preparations ...	lbs.	—	397,006	—	374,356
054	Fresh and dry vegetables, roots and tubers, not including artificially dehydrated ...	pkl.	—	798,975	—	717,701
055	Vegetables preserved and vegetable preparations	lbs.	—	163,179	—	191,992
061	Sugar ...	"	5,136,573	1,051,647	5,439,960	955,919
062	Sugar preparations ...	"	—	595,785	—	597,749
071	Coffee ...	"	233,606	311,202	305,783	334,043
072	Cocoa ...	"	5,935	9,161	3,501	8,573
073	Chocolate preparations ...	"	—	573,699	—	403,908
074	Tea and mate ...	"	69,751	249,482	49,450	205,600
075	Spices ...	"	—	115,300	—	90,970
081	Feeding stuff for animals not including unmilled cereals ...	"	—	—	—	—
091	Miscellaneous food preparations ...	pkl.	—	442,751	—	339,578
099	Miscellaneous food preparations, n.e.s. ...	lbs.	—	753,225	—	394,441
111	Water and non-alcoholic beverages ...	"	—	716,907	—	944,175
112	Alcoholic beverages ...	gls.	—	229,709	—	191,821
121	Tobacco unmanufactured (Native) ...	"	310,158	1,514,987	246,780	1,889,143
122	Tobacco manufactured ...	lbs.	—	—	30,109	203,507
211	Hides and skins (except fur undressed) ...	"	346,758	2,085,936	340,973	2,066,412
212	Fur skins undressed ...	pkl.	—	190	—	—
221	Oilseeds, oilnuts, and oil kernels ...	—	—	—	—	—
231	Crude rubber, including synthetic and reclaimed ...	pkl.	—	27,195	—	45,239
241	Fuelwood and charcoal ...	lbs.	—	2,152	—	—
242	Wood in the round ...	ton	—	—	—	—
				18,465	1,219	19,096

Group No.	Heading	Unit	1955		1956	
			Quantity	Value	Quantity	Value
				\$		\$
243	Wood shaped or simply worked	...	16,818	1,034,347	15,104	1,350,981
244	Cork, raw	...	—	—	—	—
251	Pulp and waste paper	...	—	27,992	—	—
261	Silk	...	—	—	—	—
262	Wool and other animal hair	...	—	—	—	159
263	Cotton	...	—	197,607	—	295,297
264	Jute	...	—	—	—	2,365
265	Vegetable fibres except cotton and jute	...	—	78,830	—	10,920
266	Synthetic fibres	...	—	—	—	—
267	Waste materials from textile fabrics	...	—	21,995	—	25,198
271	Fertilizers, crude	...	—	—	7,840	1,092
272	Crude mineral excluding coal, petroleum fertilizer materials and precious stones	lbs.	—	136,914	—	42,083
281	Iron ore	...	—	—	—	—
282	Iron and steel scrap	...	—	—	—	—
283	Ores from non-ferrous base metals concentrates	...	—	8,131	—	—
284	Non-ferrous metal scrap	...	—	—	—	—
285	Silver and platinum ores	...	—	—	—	—
291	Crude animal materials, inedible, n.e.s.	...	—	—	—	—
292	Crude vegetable materials	...	—	960	—	—
311	Coal, coke and briquettes	...	—	—	—	—
312	Petroleum crude and partly refined	...	—	—	—	—
313	Petroleum products	...	2,014,412	2,770,990	1,953,124	2,508,951
314	Gas, natural and manufactured	cu. ft.	—	50,060	—	17,116
315	Electric energy	...	—	—	—	—

APPENDIX "A"—(Contd.)

Group No.	Heading	Unit	1955		1956	
			Quantity	Value	Quantity	Value
				\$		\$
411	Animal oils and fats	—	—	7,448	—	—
412	Vegetable oils	pk1.	—	1,128,165	—	889,417
413	Oils and fats processed, and waxes of animal or vegetable origin	—	—	4,362	—	764
511	Inorganic chemicals	lbs.	—	862,156	—	255,766
512	Organic chemicals	—	—	42,092	—	412,054
521	Mineral tar and crude chemicals from coal, petroleum and natural gas	—	—	154,170	—	—
531	Coal tar dyes	—	—	—	—	75,825
532	Dyeing and tanning extracts and synthetic tanning materials	—	—	—	—	—
533	Pigments, paints, varnishes and related materials	—	—	750,314	—	893,556
541	Medical and pharmaceutical products	—	—	839,819	—	564,107
551	Essential oils perfume and flavouring materials	—	—	—	—	26,679
552	Perfumery, cosmetic, soap, cleansing and polishing preparations	—	—	404,504	—	420,789
561	Fertilizers, manufactured	—	—	2,387	—	1,393
591	Explosives	—	—	399,525	—	315,778
599	Miscellaneous chemicals, materials and products	—	—	330,620	—	1,125,454
611	Leather	—	—	2,225	—	—
612	Manufactures of leather, n.e.s.	—	—	39,340	—	27,159
613	Furs, dressed or dressed and dyes	—	—	—	—	—
621	Rubber fabricated materials	—	—	180,485	—	445,212
629	Rubber manufactured articles, n.e.s.	—	—	553,585	—	521,987
631	Veneers, plywood and board, etc.	—	—	41,202	—	58,489

Group No.	Heading	Unit	1955		1956	
			Quantity	Value	Quantity	Value
				\$		\$
632	Wood manufactures, n.e.s.	—	—	16,552	—	46,422
633	Cork manufactured	—	—	1,784	—	1,420
641	Paper and paperboard	—	—	746,777	—	704,861
642	Articles made of pulp, paper and paperboard	—	—	454,788	—	482,077
651	Textile yarn and thread	—	—	15,201	—	54,377
652	Cotton fabrics of standard type	yds.	1,087,223	835,389	1,166,243	993,558
653	Textile fabrics of standard type, other than cotton fabrics	—	—	—	—	—
654	Tulle, lace, ribbons, embroidery, trimming and other smallwares	"	184,954	163,814	259,382	340,732
655	Special textiles fabrics and related products	—	—	57,815	—	80,648
656	Made-up articles wholly or chiefly of textile materials, n.e.s.	—	—	217,565	—	355,751
657	Floor coverings and tapestries	—	—	503,422	—	675,184
661	Lime, cement and fabricated building materials, except glass and clay	—	—	25,267	—	37,731
662	Clay construction materials and refractory construction materials	ton	—	1,739,143	54,346	2,296,528
663	Mineral manufactures, n.e.s. not including clay and glass	—	—	607,440	—	599,625
664	Glass	—	—	453,714	—	206,663
665	Glassware	—	—	210,068	—	177,682
666	Pottery	—	—	270,661	—	269,471
671	Silver and Platinum group metals	—	—	195,491	—	130,547
672	Precious, semi-precious stones and pearls, unworked and worked	—	—	12,914	—	850
		—	—	174	—	437

APPENDIX "A"—(Contd.)

Group No.	Heading	Unit	1955		1956	
			Quantity	Value	Quantity	Value
				\$		\$
673	Jewellery and goldsmiths' and silversmiths' wares	—	—	655,999	—	445,569
681	Iron and steel	—	—	10,119,841	—	16,196,185
682	Copper	—	—	29,845	—	16,536
683	Nickel	—	—	—	—	—
684	Aluminium	—	—	68,669	—	21,171
685	Lead	—	—	2,981	—	982
686	Zinc	—	—	204,237	—	259,800
687	Tin	—	—	—	—	—
689	Miscellaneous non-ferrous base metals employed in metallurgy	—	—	—	—	—
691	Ordnance	—	—	21,423	—	8,780
699	Manufactures of metals, n.e.s.	—	—	2,263,456	—	3,928,641
711	Power generating (except electric) machinery	—	—	2,950,409	—	390,684
712	Agricultural machinery and implements	—	—	87,041	—	1,091,142
713	Tractors other than steam	—	—	730,441	—	883,982
714	Office machinery	—	—	59,906	—	78,638
715	Metal working machinery	—	—	1,203	—	—
716	Mining construction and other industrial machinery	—	—	9,155,024	—	12,419,687
721	Electric machinery, apparatus and appliances	—	—	2,650,666	—	2,639,098
731	Railway vehicles	—	—	26,633	—	2,625
732	Road motor vehicles	—	—	4,790,514	—	6,725,363
733	Road vehicles other than motor vehicles	—	—	562,890	—	582,802
734	Aircraft	—	—	647,866	—	473,890

Group No.	Heading	Unit	1955		1956	
			Quantity	Value	Quantity	Value
735	Ships and boats	—	—	\$ 90,466	—	629,021
811	Prefabricated building and their assembled parts	—	—	700,991	—	757,471
812	Sanitary, plumbing, heating and lighting fixtures and fittings	—	—	150,852	—	140,620
821	Furniture and fixtures	—	—	520,715	—	393,553
831	Travel goods and handbags, etc.	—	—	—	—	10,668
841	Clothing except fur clothing	—	—	434,621	—	477,927
842	Fur clothing	—	—	—	—	—
851	Footwear	prs.	129,349	382,471	145,973	537,070
861	Scientific, medicals, optical, etc., instruments	—	—	259,355	—	125,938
862	Photographic and cinematographic supplies	—	—	110,338	—	140,997
863	Exposed cinematographic films	rls.	12,969	14,843,650	13,139	13,100,250
864	Watches and clocks	—	—	453,835	—	665,202
891	Musical instruments, phonograph and phonograph records	—	—	102,401	—	121,513
892	Printed matter	—	—	287,406	—	218,494
899	Manufactured articles, n.e.s.	—	—	2,354,860	—	3,584,287
911	Postal packages	—	—	—	—	—
921	Live animal other than for food	—	—	640	—	510
931	Returned goods and special transactions	—	—	119,554	—	279,073
	Notes	—	—	11,130,000	—	8,729,000
	Coins	—	—	107,500	—	71,000
	Gold	tahils	—	155,659	460	73,463
	Beacon's spotlight and spares	—	—	25,549	—	—
				104,621,593		114,083,317
	Re-exports			10,976,613		5,139,171

APPENDIX "B"

TABLE SHOWING THE QUANTITY AND VALUE OF PRINCIPAL EXPORTS FOR YEARS 1955 AND 1956

Heading	Unit	1955		1956	
		Quantity	Value	Quantity	Value
Crude Oil	Long ton	5,108,970	286,920,405	5,526,504	309,308,981
Firewood, mangrove	ton	7,455	104,340	3,186	70,890
Jelutong rubber	"	191	360,664	(pkl) 10,815	308,411
Natural gas	1,000 cu. ft.	2,617,359	654,364	3,244,951	694,780
Plantation rubber	Pound	3,229,151	3,569,958	3,066,684	3,877,662
			291,609,731		314,260,724

APPENDIX "C"

GLOSSARY OF VERNACULAR NAMES AND TERMS

Ayer	Water.
Arat	A variety of padi.
Alau bunga	light hardwood.
Atap	Roofing material made from palm leaves.
Besar	Large.
Belunu	Tropical fruit.
Batong Batong	A kind of grass.
Bukit	Hill.
Bubu	Type of Crab pot.
Belian	Borneo Ironwood.
Berita	News.
Durian	Thorny fruit.
Daru'l Salam	Abode of peace.
Engkatek	A variety of padi.
Gelageh Tikus	Long grass.
Getah	Rubber, latex.
Ikan Bilis	Small Fish.
Inche	Mister.
Jelutong	The latex is the principal ingredient in chewing gum.
Jijak	Trample.
Jalan	Road.
Kajang	Matting made from leaves used as walling or roofing material.
Kambayau	Tropical fruit.
Kampong	Village.
Kerangas	Heath forest.
Kapur paya	(<i>Dryobalanops rappa</i> Becc.) Medium hardwood considered inferior to the hill kapurs.
Keruntum	<i>Combretocdrpus Rotundatus</i> .
Kilong	fish trap.
Kampong Ayer	Water village.
Kathi	A registrar of Moslem marriages and divorces.
Limau Besar	The pomelo.
Langsat puteh	Variety of padi.
Langsat Kuning	Variety of padi.
Lantik	Variety of padi.
Naga	Variety of padi.
Nalong	Variety of padi.
Nibong	<i>Oncosperma filamentosa</i> Bl., a common palm producing a useful wood.
Pikuls	133½ lbs. weight.

Penakat	Line fishing.
Pegawai masjid	Mosque official.
Padang	Field.
Puteh	White.
Radin Pasir	A variety of padi.
Rambat	Casting net.
Rambutan	Tropical fruit.
Samsu	Arrack.
Sepat	A kind of fishing in the padi field.
Sepilai Kechil	A variety of padi.
Sisek Buaya "halus"	Desmodium.
Sisek Buaya "kasar"	Desmodium ovifaluum.
Seringawan	(Shorea albida). A heavy red meranti.
Sungai	Stream.
Slanbau	Watched set net.
Sa'pencharian	Property earned together as husband and wife.
Serangs	Bosun.
Trengganu	A Malay State in the Federation of Malaya.
Tugu	A kind of fish trap.
Tongkangs	Broad beamed shallow draft wooden craft powered by small inboard or outboard engines.
Tamoi	A long tree trunk hollowed out by slow burning.
Undus	A variety of padi.
Ulu	Upper reaches of a river.
Ulat bulu	A defoliating insect.

APPENDIX "D"

RAINFALL IN INCHES FOR VARIOUS STATIONS IN BRUNEI STATE, 1956.

<i>Month</i>	<i>Brunei Town</i>	<i>Tutong</i>	<i>Kuala Belait</i>	<i>Tem- burong</i>	<i>Kilanas</i>	<i>Birau</i>	<i>Aver- age</i>
January	15.20	13.86	21.16	16.44	18.22	13.89	16.46
February	8.24	5.71	10.48	13.03	3.96	9.00	8.40
March	6.83	6.45	7.56	10.18	6.66	6.26	7.32
April	12.21	8.45	6.74	10.01	8.22	7.63	8.87
May	7.01	14.43	5.74	24.02	5.09	7.80	10.68
June	13.38	6.93	7.13	12.46	14.97	9.60	10.79
July	9.63	6.50	5.56	12.98	6.76	6.49	7.98
August	9.77	7.60	4.79	7.06	3.08	6.19	6.42
September	10.51	13.71	13.46	15.83	11.11	16.52	13.52
October	15.31	15.75	18.25	14.78	14.16	8.18	14.40
November	17.52	19.17	14.34	17.66	17.69	16.21	17.09
December	16.12	21.86	17.45	18.73	12.57	13.13	16.88
Total	141.73	140.42	132.66	173.18	122.49	120.90	
Average	11.81	11.70	11.05	14.43	10.21	10.07	
General average rainfall							11.13

PREVIOUS RECORDS (ANNUAL TOTALS) COMPARED WITH 1956

<i>Station</i>	<i>1950</i>	<i>1951</i>	<i>1952</i>	<i>1953</i>	<i>1954</i>	<i>1955</i>	<i>1956</i>
Brunei Town	91.49	124.35	104.40	84.28	109.53	115.03	141.73
Tutong	—	94.01	117.94	80.46	116.74	113.16	140.42
Kuala Belait	—	122.16	129.11	114.18	136.20	132.52	132.66
Kilanas	104.57	107.30	113.11	97.63	110.22	126.72	122.49
Birau	77.52	110.22	122.93	70.30	84.99	93.10	120.90

APPENDIX "E"

AREA IN *acres* OF CONSTITUTED AND PROPOSED FOREST RESERVES ON 31ST DECEMBER 1956

District	Name of Reserve	Finally Constituted Reserves			Proposed Reserves Preliminarily Notified	Number of Notification
		Area on 1.1.56	Added during 1956	Excluded during 1956	Area on 31.12.56	
Belait	Labi Hills	263,000	—	—	263,000	—
Belait	Anduki	2,264	—	—	2,264	—
Belait	Badas	65	—	—	65	—
Belait	Forest Nursery	27	—	—	27	—
Belait and Tutong	Andulau	30,690	—	—	30,690	—
Tutong	Ladan Hills	84,000	—	—	84,000	—
Brunei	Berakas	560	—	—	560	186/1955
Temburong	Batu Apoi	188,500	—	—	188,500	—
Temburong	Selirong	6,175	—	—	6,175	—
Temburong	Labu	22,200	—	—	22,200	—
Temburong	Peradayan	2,650	—	—	2,650	—
		600,131			600,131	

APPENDIX

* Includes part of the existing Berakas forest reserve and an extension thereto.

APPENDIX "F"

OUTTURN IN solid cubic feet OF TIMBER AND FUEL UNDER LICENCES AND PERMIT DURING 1956

Forests	Heavy Hardwood		Other Timber		Total Timber		Poles		Firewood		Charcoal	
	Round	Sawn	Round	Sawn	Round	Sawn	Mangrove	Other	Mangrove	Other	Boats	Boats
A. Forest Reserves	4,546	8,834	252,392	73,272	256,938	82,101	26,730	—	220,404	—	32,469	—
B. Other Forests	1,373	36,476	529,881	67,170	531,254	103,646	18,326	17,892	65,105	11,450	—	—
							4,624 (B.M.P. Co.)					
Total	5,919	45,310	782,273	140,442	788,192	185,747	45,056	22,516	285,509	11,450	32,469	—

APPENDIX

APPENDIX "G"

OUTTURN OF MINOR PRODUCE UNDER LICENCES DURING 1956

Forests	Getah Jelutong		Sp:	Nibong		Pikuls	Rattans	
	Pikuls	\$		Rds:	\$		Pikuls	\$
A. Forest Reserves	676.96	6,504.80	—	1,300	52.00	10.00	5.00	—
B. Other Forests	2,287.00	30,927.05	5,850	1,182	60.88	118.20	187.64	—
Total	2,963.96	37,431.85	5,850	2,482	112.88	128.20	202.64	—

APPENDIX "H"

STATEMENT OF REVENUE WHOLE STATE (BY DISTRICTS)

<i>District</i>	<i>Timber and Poles</i>	<i>Firewood and Charcoal</i>	<i>Minor Forest Produce</i>	<i>Other Source</i>	<i>Compensation and fines</i>	<i>Total</i>
Brunei	4,559.49	6,710.98	6,590.20	101.00	—	17,961.67
Tutong	21,185.10	1,061.16	2,441.03	275.00	—	24,962.29
Belait	62,173.93	92.64	29,257.44	511.00	1,420.00	93,455.01
Temburong	530.84	140.02	11.80	112.00	—	794.66
Total	88,449.36	8,004.80	38,300.47	999.00	1,420.00	137,173.63

APPENDIX "I"

EXPENDITURE OF WHOLE STATE, 1956

<i>Personal Emoluments</i>	<i>Annually Recurrent</i>	<i>Special Expenditure</i>	<i>Total</i>
\$97,905.00	\$20,732.00	NIL	\$118,637.00

APPENDIX "J"

CRIME STATISTICS—1956

Seizable Offences—Penal Code

True Reports	...	...	...	...	384
Housebreaking	...	...	...	...	17
Thefts	...	...	...	...	229
Criminal Trespass	...	...	...	...	21
Other Offences	...	...	...	...	117
Convictions	...	...	...	...	156
Acquittals	...	...	...	...	7
Undetected	...	...	...	...	108
Pending	...	...	...	...	113

Non-Seizable Offences—Penal Code

True Reports	...	...	...	...	295
Assaults	...	...	...	...	229
Mischief	...	...	...	...	27
Other Offences	...	...	...	...	39
Convictions	...	...	...	...	26
Acquittals	...	...	...	...	—
Referred to Magistrate	...	...	...	...	251
Pending	...	...	...	...	18

Seizable Offences—Other Laws

True Reports	...	...	...	...	335
Opium Enactment	...	...	...	...	16
Minor Offences Enactment	...	...	...	...	9
Gambling Offences	...	...	...	...	11
Arms and Explosives Enactment	...	...	...	...	3
Aliens Enactment	...	...	...	...	1
Immigration Enactment	...	...	...	...	280
Other Offences	...	...	...	...	15
Convictions	...	...	...	...	304
Acquittals	...	...	...	...	6
Pending	...	...	...	...	23

Non-Seizable Offences—Other Laws

True Reports	...	...	...	...	464
Minor Offences Enactment	...	...	...	...	74
Other Offences	...	...	...	...	390
Convictions	...	...	...	...	162
Acquittals	...	...	...	...	92
Referred to Magistrate	...	...	...	...	127
Pending	...	...	...	...	83

Traffic Offences

True Reports	...	...	...	...	1,322
Road Traffic Enactment	...	...	...	...	1,240
Minor Offences Enactment	...	...	...	...	82
Convictions	...	...	...	...	959
Acquittals	...	...	...	...	106
Pending	...	...	...	...	257

APPENDIX "K"

BUILDINGS COMPLETED IN THE BRUNEI, MUARA, TUTONG AND
TEMBURONG DISTRICTS DURING THE YEAR 1956

- 3 Blocks of Senior Officers Quarters at Jalan Berakas.
- 1 Block of Class B Quarters at Jalan Istana.
Extension to Nurses Hostel.
- 1 Block of 32 door Brick Barracks in Jalan Sumbiling.
Extension to 1st Ministers Quarters.
Extension to Royal Brunei Yacht Club.
- 1 Office and Store for the Agricultural Department at Lumapas.
- 13 Nos. Rural Schools, Quarters and Ancillary Buildings.
- 4 Nos. Sub-Stations for Electrical Department.
- 1 Block Class F Quarters for Agricultural Department at Berau.
- 2 Blocks Class E Quarters for Agricultural Department at
Jerudong.
- 1 Block Class E Quarters for Electrical Department at Tutong.
- 1 Block of 8 door Barracks for Electrical Department at
Tutong.
- 1 Block of 10 door Barracks for Agricultural Department at
Kilanas.
- 1 Power House for Electrical Department at Tutong.
- 1 Power House for Electrical Department at Temburong.
- 1 Block Garages for Police Department.
- 2 Blocks of Temporary Quarters at Muara for Commissioner of
Development.
Extension to Existing Mosque.

BUILDINGS UNDER CONSTRUCTION AT THE END OF 1956

- 8 Nos. Rural Schools and Quarters.
- 1 Block of Senior Service Flats for Medical Department.
S.M.J.A. Girls School, Brunei.
Terminal Building at Brunei Airport.
- 1 Block of 8 door Barracks for Municipal Department.
- 1 Block of 12 door Barracks for P.W.D.
- 1 Forest Checking Station at Labu.
- 1 Agricultural Office and Store at Temburong.
- 40 Blocks of Quarters at Tongkadeh.
Miscellaneous Buildings for Agricultural Department at
Jerudong.

APPENDIX "L"

BUILDINGS COMPLETED IN THE KUALA BELAIT-SERIA
DISTRICT IN 1956

- 4 Blocks 2 Class F Quarters
- 3 Blocks 10 door Junior Barracks, P.W.D.
- 2 Blocks 10 door Barracks, Municipal.
- 1 Block Old Type 2 Class F Quarters.
- 4 Blocks Electrical Sub-Stations.
- 1 Arcon Paint Shop, P.W.D.
- 1 Blacksmith Shop, P.W.D.
- 1 Arcon Service Station, P.W.D.
- Garages for Electrical Department.
- 1 Telephone Exchange.
- 5 Bay 3 Pin Arcon Garage, P.W.D.
- 28 Bays 3 Pin Arcon Garage, P.W.D.
- Customs Matches Store.
- Temporary Extension to Rest-House.
- Bus Stand.
- New Malay School.

SERIA :

- Slaughter Houses at Sungei Bera.
- Bus Stand.
- Old Persons Home.
- Police V.H.F. Station.
- 6 Bay 3 Pin Arcon Garage, Police.
- New Malay School.
- Extension to Temporary English School.
- Garage for Municipal Department.

SUNGEI LIANG :

- New Malay School.
- 2 Blocks 2 Class F Quarters.

BUILDINGS UNDER CONSTRUCTION AT THE END OF 1956

KUALA BELAIT :

- Extension to Government Hospital.
- New Post Office.
- 2 Blocks Class C Quarters.

APPENDIX "L"—(*Contd.*)

- 2 Blocks Class F Quarters.
- 1 Block 10 door Junior Barracks, Marine.
Slaughter House.
New Market.
Office and Store for Water Works.
Public Latrines.
Agricultural Office and Potting Shed.
Amenities Block for P.W.D. Compound.
Telephone Exchange Power House.
Senior Officers Flat.
Istana, Panaga.

SERIA :

- 1 Block Class C Quarters (Police Canteen).
Extension to Government Office, Seria.
Conversion of Old Malay School to Quarters.
English School.
Old Persons Home.
Public Latrines.
Panaga Police Station.
- 2 Blocks 20 door Barracks.
- 5 Blocks Class E Quarters.
- 1 Block Senior Officers Quarters.

APPENDIX "M"

PUBLIC WORKS DEPARTMENT

DETAILS OF GOVERNMENT-MAINTAINED ROADS

Classification of Road	Length in				Length			Total Mileage
	Bitumen	Concrete	Metalled Gravelled	Earth	All Weather	Dry Weather	Jeep Track	
Main Roads	30.29	0.24	20.82	2.95	58.30	—	—	58.30
Secondary Roads	1.07	—	3.70	33.30	9.24	18.23	11.15	75.36
Access Roads	4.64	0.07	1.74	0.27	4.13	0.39	0.06	6.70
Tracks	—	—	—	41.28	1.25	5.50	1.70	41.28
Municipal and Township Roads	8.72	1.29	0.84	7.19	16.19	1.29	4.17	17.94
							0.08	0.86

APPENDIX

APPENDIX "N"

PROFIT AND LOSS

(Electrical Department)

<i>Creditor</i>		<i>Debtor</i>
Electricity Supply		Electricity Supply
Excess Revenue over Expenditure	\$45,305.83	Interest on Capital \$1,573,140.32 @ 3½% \$55,059.91
Wiring		Redemption Fund Con- tribution on plant \$1,573,140.32 @ 5% \$78,657.02
Excess Revenue over Expenditure	135.05	Hire of Electrical Appliances
Hire of Electrical Appliances		Interest on Capital \$156,207.45 @ 3½% \$ 5,467.26
Excess Revenue over Expenditure	\$45,640.96	Redemption Fund Con- tribution on applian- ces \$156,207.45 @ 20% \$31,241.49
Interest on Redemption Fund \$136,441.71 @ 3½%	4,775.46	
Loss 1956	74,568.38	
	<u>\$170,425.68</u>	<u>\$170,425.68</u>

APPENDIX "O"

BRUNEI

BRITISH RESIDENTS

	1906/May	1907	— M. S. H. McArthur
May	1907/Dec.	1907	— H. Chevallier
Jan.	1908/April	1908	— M. S. H. McArthur
April	1908/Sept.	1909	— J. F. Owen
Sept.	1909/Nov.	1909	— B. O. Stoney (Acting)
Nov.	1909/Nov.	1913	— H. Chevallier
Nov.	1913/Dec.	1914	— F. W. Douglas
Jan.	1915/May	1916	— E. B. Maundrell
May	1916/Mar.	1921	— G. E. Cator
Mar.	1921/Mar.	1923	— L. A. Allen
Mar.	1923/Feb.	1926	— E. E. F. Pretty
Mar.	1926/Mar.	1927	— O. E. Venables
Mar.	1927/May	1928	— E. E. F. Pretty
May	1928/Jan.	1929	— P. A. B. McKerron
Jan.	1929/Aug.	1929	— R. J. F. Curtis
Aug.	1929/Sept.	1931	— P. A. B. McKerron
Sept.	1931/Oct.	1934	— T. F. Carey
Nov.	1934/Jan.	1937	— R. E. Turnbull
Jan.	1937/Dec.	1939	— J. Graham Black
Jan.	1940/Dec.	1941	— E. E. Pengilley
July	1946/Jan.	1948	— W. J. Peel
Jan.	1948/Aug.	1948	— L. H. N. Davis
Aug.	1948/June	1951	— E. E. F. Pretty
July	1951/June	1953	— J. C. H. Barcroft
June	1953/July	1954	— J. O. Gilbert
July	1954/Oct.	1954	— D. H. Trumble
Oct.	1954/June	1956	— J. O. Gilbert
June	1956/Dec.	1956	— D. C. White
Dec.	1956/		— J. O. Gilbert

ASSISTANT RESIDENTS

May	1905/May	1907	— F. A. S. McClelland
May	1907/June	1908	— J. C. Sugars
June	1908/Feb.	1910	— B. O. Stoney

APPENDIX "O"—(Contd.)

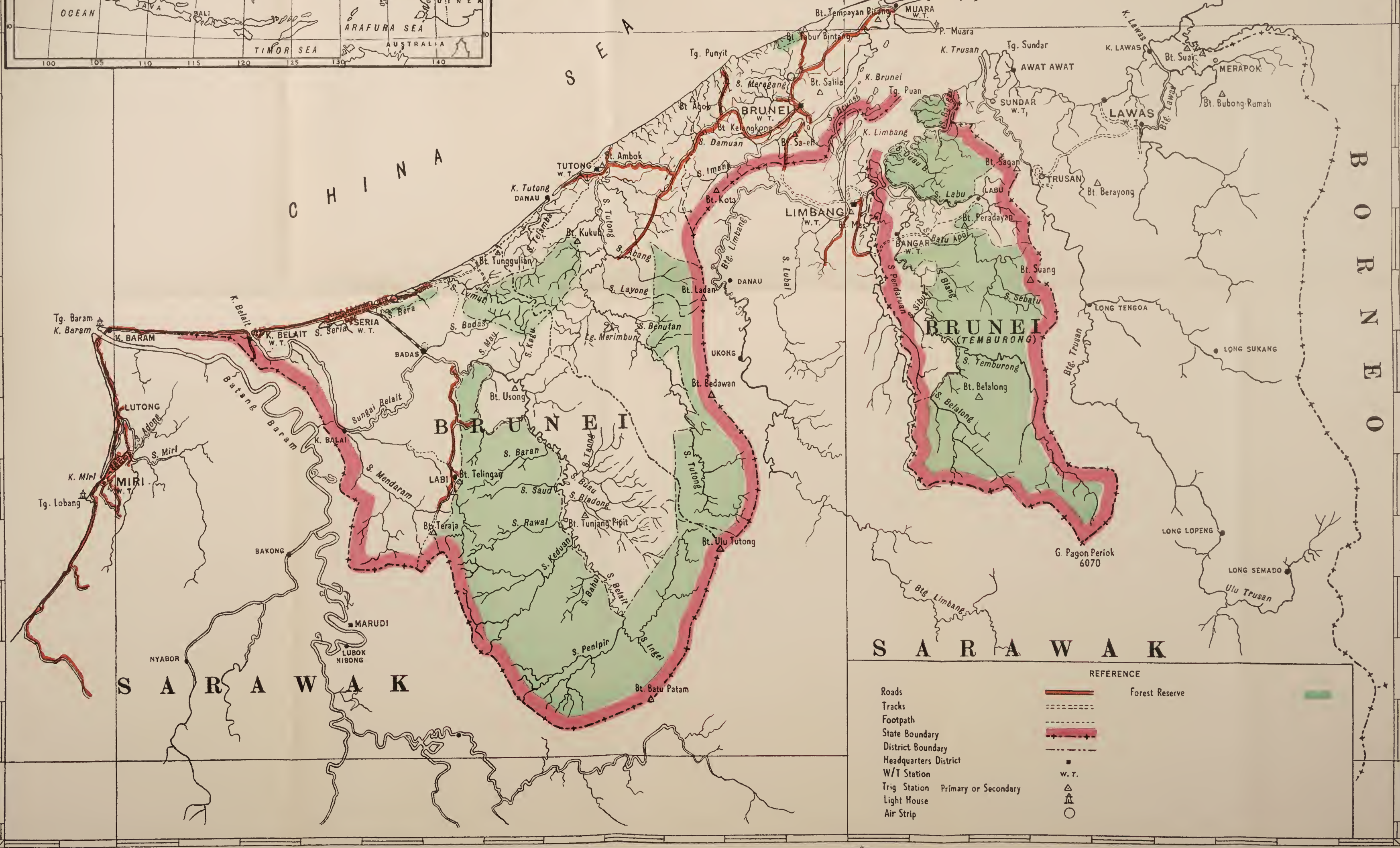
ASSISTANT RESIDENTS

Mar.	1910/May	1911	— W. H. Lee-Warner
Mar.	1911/Jan.	1913	— E. A. Dickson
Jan.	1913/1914		— W. H. Lee-Warner
	1914/1930		— Abolished
Jan.	1931/Sept.	1931	— T. F. Carey
Oct.	1931/Sept.	1933	— R. C. Gates
Aug.	1933/April	1935	— A. Glencross
April	1935/Mar.	1936	— D. A. Somerville
Mar.	1936/May	1938	— H. Hughes-Hallett
May	1938/April	1940	— E. C. C. Barrett
May	1940/Dec.	1941	— R. N. Turner
July	1946/Jan.	1947	— C. J. Briscoe
Jan.	1947/Dec.	1947	— N. H. Wood
Dec.	1947/Mar.	1949	— D. C. I. Wernham
Mar.	1949/Oct.	1949	— I. Harper (Kuala Belait)
Oct.	1949/June	1950	— I. Harper (Brunei)
Oct.	1949/Mar.	1951	— R. C. S. Bell (Kuala Belait)
Sept.	1950/Oct.	1951	— P. Scanlon (Brunei)
Mar.	1951/Nov.	1953	— G. A. T. Shaw (Kuala Belait)
Oct.	1951/April	1952	— R. G. Keech (Brunei)
April	1952/April	1953	— M. M. McSporran (Brunei)
Nov.	1953/Feb.	1954	— H. P. K. Jacks (Kuala Belait)
April	1953/Oct.	1954	— J. T. Weekes (Brunei)
Feb.	1954/July	1956	— P. A. Coates (Kuala Belait)
Oct.	1954/Jan.	1956	— R. H. Morris (Brunei)
July	1956/		— G. Lloyd-Thomas (Kuala Belait)
Jan.	1956/		— D. L. Bruen (Brunei)

NOTE:— The appointment of Assistant Resident was abolished in 1915 and was not recreated until 1931 consequent upon the development of the Seria Oilfields, Kuala Belait. The appointment of Assistant Resident, Brunei was created in October 1949.



REPORT MAP OF THE
STATE OF BRUNEI
1956



S A R A W A K

- REFERENCE
- Roads
 - Tracks
 - Footpath
 - State Boundary
 - District Boundary
 - Headquarters District
 - W/T Station
 - Trig Station Primary or Secondary
 - Light House
 - Air Strip
 - Forest Reserve

